DOCUMENT RESUME

ED 224 104 EA 015 189

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TITLE Curriculum Development. A Handbook for School Districts.
INSTITUTION New York State Education Dept., Albany. Bureau of General Education Curriculum Development.
PUB DATE 82
NOTE 96p.; Some charts may reproduce poorly due to small, light print of original document.
PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Curriculum Design; *Curriculum Development; Educational Needs; Educational Objectives; Elementary Secondary Education; Financial Support; Needs Assessment; Planning; Program Evaluation; Program Implementation; *School Districts; State Programs
IDENTIFIERS New York

ABSTRACT

This handbook has been prepared to assist administrators, curriculum specialists, and teachers in local school districts and boards of cooperative educational services (BOCES) in the state of New York in developing curriculum, but it could be used by local education agencies in any state. The introduction describes the role of the state and of local districts in curriculum development. Chapter 1 provides local education agencies with suggestions on how to prepare for curriculum development, with particular emphasis on leadership, administration, and supervision. The remaining chapters describe the development process itself under the headings needs assessment, planning, obtaining resources to support curriculum development activities, development of curriculum, implementation, and evaluation. Each element of the process is presented in a chart that is repeated in each chapter. Brief checklists are included as a means of assessing progress through each phase of the local curriculum project. (Author/JM)

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CURRICULUM DEVELOPMENT

A HANDBOOK FOR SCHOOL DISTRICTS

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THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
BUREAU OF GENERAL EDUCATION CURRICULUM DEVELOPMENT
ALBANY, NEW YORK 12234
1982

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FOREWORD

This handbook has been prepared to assist administrators, curriculum specialists, and teachers in local school districts and BOCES who are faced with the challenge of developing curriculum. By reflecting and defining the respective, yet complementary roles of both local education agencies and the State Education Department in the curriculum process, this material is designed to enhance the continuity of statewide curriculum development efforts in order that they best serve the learner.

This draft has been developed by the Putnam-Northern Westchester Board of Cooperative Educational Services (BOCES) in cooperation with the State Education Department's Bureau of General Education Curriculum Development. Development costs for the project were provided by other BOCES in New York State.

The principal writer for the project was **Dr. Richard L. Wing** (retired), Putnam-Northern Westchester BOCES. Special consultant was **Dr. Roland B. Kimball,** Chairman, Department of Education, University of New Hampshire. **Robert Carruthers** and **George Gregory,** associates in the Bureau of General Education Curriculum Development contributed material and helped edit the manuscript.

Members of the project Advisory Committee were: **David Cadwallader,** Curriculum Coordinator, Yorktown Heights Public Schools; **Carol Caliandro,** Teacher, Haldane Public Schools; **Dr. James Carter,** former Superintendent, Haldane Public Schools; **Dr. Charles Chase,** Assistant Superintendent for Instruction, Corning-Painted Post Area School District; **Dr. Stephen Fisher,** Assistant Superintendent for Instruction, Bedford Public Schools; **Dr. Marcia Knoll,** Principal, PS 220, Forest Hills; **Sally McCracken,** Elementary Math-Science Coordinator, Carmel Central Schools; **Rosalie Rogers,** Curriculum Assistant, Briarcliff Manor Public Schools; and **Dr. Ronald Szczypkowski,** President, Magi Educational Services.

These materials were fieldtested and/or reviewed in several local education agencies. The efforts of educators at these locations is gratefully acknowledged: Bedford Public Schools, Yonkers City School District, Guilderland Central Schools, Pleasantville U.S.F.D., Lakeland Central Schools, Livingston-Steuben-Wyoming BOCES, and Blind Brook Central Schools. We are also indebted to the numerous other educators who reviewed various drafts of the publication and made numerous suggestions for its improvement.

The project was coordinated and supervised by **Walter Goodman,** Director, Putnam-Northern Westchester BOCES Curriculum Center, now retired, and by **Barry Jamason,** Associate, Bureau of General Education Curriculum Development, who also contributed material and prepared the manuscript for publication.

The curriculum defined in this publication supports the State Plan for Basic Skills and was reprinted, in part, with funds from ESEA Title II Basic Skills.

Reprinted 1982

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INTRODUCTION

...OVERVIEW

This handbook has been prepared to meet the specific needs of those persons who are involved in the process of developing local school curriculum in the schools of New York State. It is addressed to:

- The newcomer to curriculum development; it provides detailed suggestions for completing a curriculum development project.
- The experienced curriculum developer; it assists in refining and updating development skills and in locating support for project development.
- The school administrator; it provides suggestions for exercising effective leadership, establishing support, and insuring accountability.
- The board of education; it identifies the function and role of the State education agency in relation to the local curriculum development process.

...ORGANIZATION OF THE PUBLICATION

This introduction describes the role of the State in curriculum development as a necessary preface to consideration of the regional or local role in curriculum development, which is also delineated.

The first chapter of the publication provides local education agencies with suggestions on how to prepare for curriculum development, with particular emphasis upon leadership, administration, and supervision. The remaining chapters describe the development process itself, from the initial needs assessment phase through evaluation of the developed program. These elements of the process are illustrated by the chart on page 4. The chart reappears throughout as an introduction to each of the chapters.

Brief checklists are included in each chapter as a means of assessing progress through each phase of the local curriculum project, and to assist project staff in holding themselves accountable for what has been accomplished at each stage of the project. At the end of the publication, there is an appendix which includes samples of material cited throughout the publication and various other charts, references, and aids.

...LOCAL CURRICULUM DEVELOPMENT IN PERSPECTIVE

The Role of the State

Mandates...In New York State, Education Law, the Rules of the Board of Regents, and the Regulations of the Commissioner of Education

describe, in most instances, the minimum program which all schools in the State must offer. These requirements are described in a number of Department bulletins including: The Elementary School Curriculum: An Overview; The Secondary School Curriculum: A Handbook for Administrators (currently being revised); Minimum Requirements for Schools in New York State; The Standard School Curriculum in New York State (brochure); and in the various subject area syllabuses.

Syllabuses... To implement the study of the required and other subjects, the State Education Department, through the cooperation of outstanding classroom teachers and consultants, prepares a syllabus for each subject. This syllabus provides, often in outline or chart form, a basic framework of objectives, concepts, understandings, and skills. The Department also provides handbooks in many subjects to supplement the syllabuses. These handbooks offer a wide selection of learning activities for students of widely varying needs, interests, and abilities.

Course Approvals... Local school districts are encouraged to prepare their own courses of study using State syllabuses as bases. If a local course of study is not based upon the State syllabus, or is offered as a Group III elective, it must be approved by the appropriate subject bureau of the department and by the Bureau of General Education Curriculum Development. Information about such courses and credit appears in the Appendix on pp. 71-72. One of the first tasks in local curriculum development is to consult the appropriate State syllabus or handbook to insure that the local curriculum effort builds upon that framework.

Cooperative Service Requests/Proposals (CO-SER)... The Department annually establishes priorities for State-aided local curriculum development activity by two or more collaborating school districts. The current list of priorities may be obtained from the Bureau of School District Organization.

Examinations... The Department directly influences local curriculum through the State program of examinations, including Regents examinations, Regents Competency Tests, PEP Tests, and similar instruments. Specific information concerning examinations as related to the various subject areas described in this publication may be found in the Department publications, Regents Examinations & Competency Tests and New York State Pupil Evaluation Program and Preliminary Competency Tests available to superintendents and principals from the Publications Distribution Office, State Education Department, Albany, NY 12234.

The Role of the Boards of Cooperative Educational Services (BOCES)

BOCES provide their constituent districts with a wide variety of educational services including the coordination and support of curriculum development by these districts. This curriculum service is manifested through both the collaborative, State-aided CO-SER process mentioned above and the technical assistance normally provided by the curriculum division

of the BOCES. In the former instance, development costs incurred by districts are reduced when the districts are subsequently reimbursed for approved, cooperative service (CO-SER) projects. An example of a BOCES-sponsored curriculum development plan is included in the Appendix on pp. 78 - 79. Other local curriculum activities are coordinated, subsidized, and evaluated by the BOCES using its own resources and staff.

The Role of Local Districts

From the above it would appear that the State and, to some extent, BOCES have preempted much of the responsibility for curriculum development in New York State. This is not the case, however, since the Commissioner's Regulations encourage local curriculum development in Section 100.2b: "The principle of flexibility shall apply to every area of the curriculum. The exercise of initiative and responsibility on the part of local school authorities in the administration of the curriculum is encouraged." Specific examples of local curriculum development prerogatives follow:

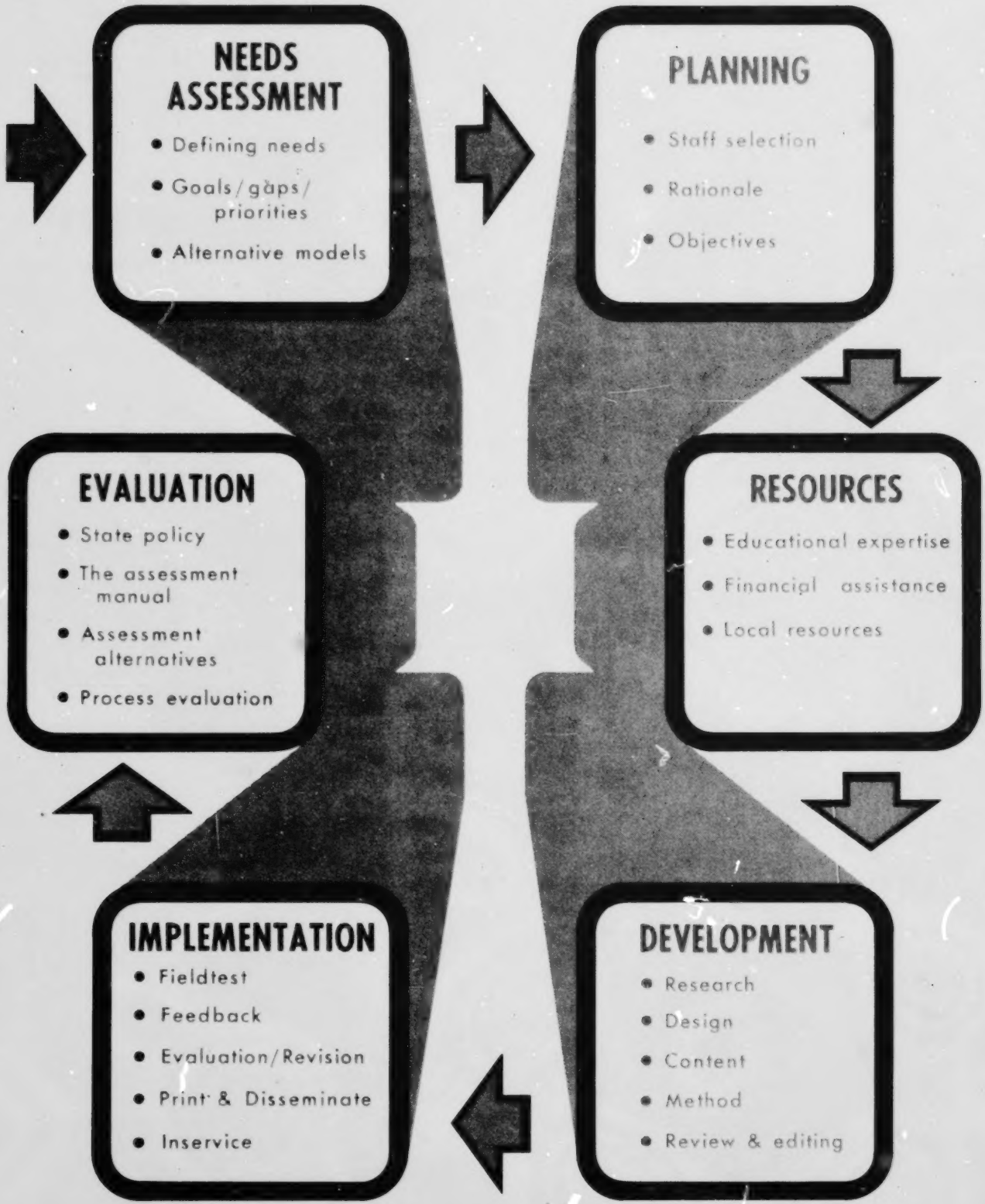
- Developing courses of study based upon the State syllabus
- Developing courses in subjects for which the State Education Department does not issue syllabuses
- Adapting content to the needs of exceptional children
- Experimenting with new approaches, new materials, or new patterns of organization
- Developing pilot programs, by special arrangements with the Department, in courses which are markedly different from State courses in content and scope
- Improving basic skills or fostering more mature study skills (assuming that such provision is not made in the State syllabus)

Not to be overlooked is the fact that local efforts in the process of curriculum development are rewarding experiences for administrators, instructional leaders, planners, innovative teachers, and the school community. A new sense of professional accomplishment often results. Finally, the *raisons d'être* for a local project, the students, receive the best efforts that the local district can make to meet their needs.

Local curriculum development, then, supplements the role of the State and that of the area BOCES. Local curriculum efforts reflect the district's commitment to its students and can provide an exciting, worthwhile opportunity to all those involved.

Be mindful throughout that by "curriculum development" is meant the improvement of instruction in any subject field or aspect of the educational program. "Curriculum" is taken to mean the totality of learning experiences for students. This handbook emphasizes that phase of the curriculum development process which results in the production of curriculum materials, or instructional supplements, and it is designed to help local school districts achieve that goal.

THE CURRICULUM DEVELOPMENT PROCESS



CHAPTER 1: PREPARING FOR CURRICULUM DEVELOPMENT

...OVERVIEW

This chapter addresses several important concerns related to developing curriculum locally: change and the curriculum; leadership in curriculum development; and, initial steps to be taken to get the process underway.

...CHANGE AND THE CURRICULUM

The organization of this handbook is based upon the assumption that while it is generally agreed that change is needed, the specific needs, and their order of importance have not yet been determined. For this reason, the curriculum development process described in subsequent chapters begins with needs assessment.

Over the past 30 years the process of changing the curriculum in schools has itself undergone a change. More than ever before, there is now an emphasis upon the participation of all concerned with this process: boards of education, administrators, teachers, students, support staff, parents, and community. As Tye and Benham[1] said, "The simple mandating of new ideas, curriculum, and/or behaviors is not enough. Change occurs slowly, and new ideas need to be accepted and internalized as useful by those who are to implement them." As the ECOS Process[2] report points out, "What is important is the rate of the change, the size of the change, and the direction of the change."

The preceding statements have these implications for curriculum change:

- People must be involved in decisions affecting them.
- If individuals have been prepared for change, they can more readily accept it.

Thus, it is a responsibility of those charged with curriculum change, whoever they may be, to use whatever strategies are available to pave the way for the change. Also, as Czajkowski and Patterson[3] point out, "Substantive change is a time-consuming process:

- The change process cannot be pushed; skipping is a mistake;
- Process is an influential change agent;
- Little change is going to occur until people perceive a discrepancy between existing and desired beliefs and actions (See Chapter 2: Needs Assessment.);

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[1]Kenneth Tye and Barbara Benham. "The Realities of Curriculum Change," Educational Leadership, Vol. 36, No. 1, October, 1978, pp. 30-35.

[2]ECOS Process for Curriculum Development. Yorktown Heights, NY: ECOS, Putnam-Northern Westchester BOCES, 10598.

[3]Theodore Czajkowski and Jerry L. Patterson. "To Foster Kinship Among Curriculum Workers." Educational Leadership, Vol. 34, No. 7, April, 1977, pp. 536-539.

- Individuals need time and the opportunity to examine currently held positions;
- Those who experience the process of curriculum change are the most affected by it;
- Not all teachers or groups change in the same way or at the same rate."

Consequently, the process of developing curriculum locally will provide opportunities and time for people to participate in the changes, and thus to grow in their willingness to implement them.

...ORGANIZING FOR CURRICULUM DEVELOPMENT

The chance of success for any enterprise is directly related to the degree and quality of the organizational effort that precedes it and nurtures it throughout. An organizational scenario which would match this requirement (and the design of this publication) might be:

The community (including citizens, parents, administrators, teachers, students) recognizes and has communicated to the school board that some of the district's goals are not being met...the school board empowers the administration to particularize these discrepancies (needs assessment) and votes funds to accomplish this task...the administration conducts the needs assessment (or contracts to have it done)...the board and the administration agree upon the order in which these deficiencies will be addressed... the board authorizes the expenditure of funds (or authorizes a proposal to obtain external funds)...the administration selects a project staff (planning...resources...development...implementation...evaluation...)

The scenario implies adequate support for the effort. That leaves the important task of assigning responsibility for the project and all of the tasks it will generate. (At this point we should note the importance of the principal, or another key district administrator, as a major agent of change.) It is advisable to develop these assignments clearly, preferably in writing, with the following considerations in mind:

- Who is to be involved?
- What is the role of each person to be?
- What lines of communication and authority will link these people?
- How will decisions be made?

Along these lines, the work of Bulach[4] seems helpful. He describes an organizational plan for a large school system. In it he divides the K-12 curriculum into content areas, provides for a five-year plan for each of these areas, and provides for the establishment of an organizational structure featuring coordination between content areas and grade levels. Additionally, the plan assumes the involvement of all of those affected by the curriculum. Bulach states that this model "allows for a diffusion of the power base and establishes a communication system that facilitates the free flow of information — up, down, horizontally. The system outlined

[4]Cletus Bulach. "An Organizational Plan for Curriculum Development." Educational Leadership, Vol. 35, No. 4, January, 1978, pp. 308-312.

creates another system outside of the formal (line/staff) system. It takes the power held by the principal and central office administrators and gives some of it to some teachers, students, and citizens." Ultimately, however, the decisions about responsibility, involvement, and authority will reflect the nature of the school community in which they are made.

...COMMUNICATION

An effective communication system will overcome, many difficulties, both semantic and substantive. Good communications will also alleviate problems normally caused by lack of enthusiasm, anxiety, time constraints, and misconceptions about the project. Consider the fact that the effectiveness of communication depends directly on the quality and universality of participation.

Those charged with the administration of a curriculum project should pay particular attention to existing communication practices and to new ways of sharing information required by the curriculum project.

In a large school system, a separate newsletter about the project may be helpful, or, in the regular newsletter, inclusion of news items about the progress of curriculum development. Announcements in faculty meetings, in school board meetings, and in daily bulletins will aid in keeping staff members informed. (In a large bureaucracy, important information fails to sift down to the teachers and others who should know what is going on. One of the more common problems in a communication network is the failure of administrators and supervisors who have attended a staff meeting to report their new knowledge to the people.)

Organizational devices include use of a coordinating committee to keep all the processes working collaboratively and to inform all concerned about new developments. Other committees which share communication responsibility are district curriculum groups, planning committees, advisory groups from the community, professional organizations, and parent groups.

The latter two groups can assist in communication or "dissemination" to other communities and districts. Some means of dissemination are:

- Radio announcements
- Newspaper releases
- Television broadcasts
- Newsletters
- Reports
- Forums
- Demonstrations
- Reception of visitors

The curriculum development plan (See Chapter 3: Planning.) must contain a section in which plans for communication and dissemination are described.

...LEADERSHIP

There is considerable literature on the subject of educational leadership, certainly evidence of its importance. Beyond, or in addition to, what use is made of these sources, a project director should consider the advice contained in the memorandum on page 8.

TO: Local Curriculum Development Project Director

FROM: Experience

SUBJECT: Leadership

Much of the success of your local curriculum development project will depend upon admonitions such as the following:

- Know yourself. What are your strengths and weaknesses in terms of knowledge of the task? of people? of resources? ability to work with others in setting goals? in discussing, disagreeing, advancing alternatives? What is your leadership style: authoritarian? cooperative? other? How can you use it to work with others? Are you able to devise new solutions to problems?

- Know the situation. What you do not know, you must know how and where to find out!

  The Task...Use this publication and other references; know what steps you and the group are to take; when and how you are to take them. Know the many alternatives available; be able to select the best one. Anticipate the needs of the project and its participants. Be able to articulate the task of the project at any time in various ways to various audiences.

  The Community...How does it regard curriculum change? What is its record of support in the past? How well-informed are its members? What will they accept or not accept?

  The School...What needs of students is it meeting? not meeting?

  The Staff...Who are the leaders, innovators, and advocates? A few of these will help more than a dozen who are not very highly motivated.

  The Resources...How many SED, BOCES, local and other resources are you familiar with?

  The Students...What have they done so far? What are their goals? To what extent do they attain them? What are their special needs? Are these being met in regular courses? in electives? in extramural activities?

- Get an early commitment, preferably in writing, from the administration/board of education, of support for the curriculum development project: purpose, objectives, funds, facilities, people to be employed (regular staff, per diems, consultants), product (if any) expected, form of evaluation to be used.

- Define the responsibilities and roles of people involved.

- Delegate responsibilities to people in terms of their particular strengths and working styles.

- Use group dynamics effectively working toward group goals.

- Keep a record of progress. Recheck your goal and objectives leading to it, and relate what the team has done with them.

It is important that the district administrators generally support the program and in addition provide for sound public relations, effective staff communication, liaison with the board, provisions for continuity or institutionalization, and creative resolution of unanticipated problems which may arise.

CHECKLIST – CHAPTER 1 – PREPARING FOR CURRICULUM DEVELOPMENT

	Yes	No	Not Applicable
1. The community and the school board support the notion that curriculum change is needed.			
2. Funds for the project have been identified/allocated.			
3. Lines of communication between project and participants ⟶ administration ⟶ board/ community have been established.			
4. Responsibility for leadership of the project has been assigned.			

...REFERENCES

Bulach, Cletus. "An Organizational Plan for Curriculum Development." Educational Leadership, Vol. 35, No. 4, January, 1978, pp. 308-312.

Czajkowski, Theodore and Jerry L. Patterson. "To Foster Kinship Among Curriculum Workers." Educational Leadership, Vol. 34, No. 7, April, 1977, pp. 536-539.

Tye, Kenneth and Barbara Benham. "The Realities of Curriculum Change," Educational Leadership, Vol. 36, No. 1, October, 1978, pp. 30-35.

West, Leonard J. "Design and Conduct of Educational Surveys and Experiments." Delta Pi Epsilon Service Bulletin No. 2. 41 p. 1977.

THE CURRICULUM DEVELOPMENT PROCESS

CHAPTER 2: NEEDS ASSESSMENT

...OVERVIEW

This chapter defines needs assessment and describes the steps in that process. References to alternative models of needs assessment are provided.

...DEFINITION OF NEEDS AND NEEDS ASSESSMENT

Needs assessment is a vital part of educational planning and evaluation and a necessary prelude to curriculum development or improvement. Needs assessments are conducted to guide curriculum planners in identifying learning experiences which should be changed or improved. In the process, some comprehensive assessments are expected to give outsiders, as well as school personnel, a stronger sense of participation in the school program. The process sets the stage for planning these curricular changes and serves as a method for involving staff, students, parents, and the general community in setting goals and priorities for the school.

Need is defined as *the difference between the ideal and the actual.* For instance, a school *needs* an improved program in metric math if:

- Metrics is considered important, and
- There is evidence that the students do not understand metric measurement well enough

Thus there are two conditions necessary to consider in establishing a needs assessment: the condition desired and the *status quo.* For a local curriculum development project, the chief emphasis in the needs section of the plan for the project may simply be an enumeration of current deficiencies, particularly if the ideal situation has already been described in a State requirement, in a school board resolution, or in the district's philosophy of education. (See sample in the Appendix on pages 73-74.)

> An assessment of needs should be made to determine the discrepancy between desired goals and the actual conditions of education in district schools.

...NEEDS ASSESSMENT: STEPS

The motivation for assessing needs may stem from a variety of sources including:

- Interest in revising an outdated curriculum
- Response to a new State program or mandate
- Disappointing student achievement as shown by test results
- Community desire for a new look at the school system and its goals
- Special interest in a new topic
- Budgeting pressures

A commonly accepted method of assessing educational needs includes these steps: goal setting, status determination, gap measurement, and priority determination.

Goal setting...Determine the *desired* conditions. These conditions or goals may be ones which have been operative in the district as reflected in its philosophy of education or they may be ones which have been generated by the State[1], the community, staff, etc., specifically for this needs assessment. For example:

The primary purpose of the Resource Allocation Plan is to improve the academic achievement of children in the basic skills: reading, writing, and mathematics by means of reallocation of existing resources.

The ultimate purpose of projects designed to reallocate resources to improve achievement in the basic skills is to enable the students in the designated schools, and other schools with need, to meet the standards set by the Regents Competency Testing Program for high school graduation. To meet this challenge, funded projects may include combinations of administrative, curricular, instructional, and evaluative practices designed to reallocate existing resources to meet the basic skills needs of the students in the particular organizational unit or units to be served by the projects.

Status determination...Ascertain the *existing* condition or status of each goal. The measurement part of needs assessment, answering the question "How well are we doing?", can be accomplished through a variety of evaluation procedures, all discussed in Chapter 7. The most common techniques are:

- Tests, including achievement tests, competency exams, Regents exams (See example below.)
- Opinion surveys addressed to community members, staff administrators, students, board members
- Interviews, dialogue, or conversations with various audiences, singly or in public meetings
- Review of documents, such as school records, census data, annual reports, other surveys, newspaper articles
- Observation of the schools by insiders or outsiders
- Studies by outside experts using any combinations of the above.

In 1978-79 the New York State Education Department analyzed test results in reading and mathematics from all districts in the State and designated certain districts as targets for special help in improving performance in basic skills. The statewide improvement program which includes the Resource Allocation Consortium (RAC) is known as "RAP" (Resource Allocation Plan).

Gap measurement...Identify and analyze (quantify) discrepancies between the goal and the existing condition. Any number of devices, both objective and subjective, may be employed to analyze these discrepancies. Usually, however, the difference between, for example, desired achievement test results and actual achievement test results will illustrate the gap sufficiently for priorities to be established and for objectives to be written. Even with subjective observations of outcomes the differences between the ideal and the actual will generally invite prescriptions for action.

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[1]See Goals for... in References on page 18.

The designated districts have schools with high percentages of students who failed to meet minimum competency standards in writing, reading, or mathematics, or who fell below specified reference points on designated tests of reading or mathematics or both. The reference points which serve as minimum performance levels prerequisite for graduation are grades of 65% on the Regents' Competency Tests (RCT) or on the Regents' high school examination in English and mathematics.

Priority determination... Assign a priority to this gap, in relation to others which have been determined in the same fashion. In a survey of curriculum needs, it is useful to arrange findings according to priorities. Having priorities will help in setting schedules and in determining the degree of financial or other support which is likely to be available for any project which is initiated.

In the example given above, the State has determined the priority. In other instances, the local education agency will determine priorities based upon its own goals ⟶ status ⟶ gap ⟶ etc...

...as in the partial example which follows:

Goal. All gifted and talented children with handicapping conditions in the BOCES region should improve their capabilities within the area of their recognized gifts and talents to the point that their lives would become significantly enriched and the society in which they live would be better for it.

Status determination. The supervisors and resource room teachers in the twenty component districts of the BOCES were asked to identify handicapped children who possessed one or more characteristics of giftedness listed by C. June Maher in her book Providing Programs for the Gifted Handicapped. The returns indicated that there are at least 100 gifted children with handicapping conditions in the area, none of whom are now being served by a program especially designed to fit their talents....

Gap measurement...etc.

> Goal: An intent communicated by a statement describing a proposed change; the end toward which effort is directed.

...NEEDS ASSESSMENT: ALTERNATIVE MODELS

A district about to assess its needs will find it useful to examine certain models with a view to modifying its own needs analysis procedure through adaptation or with the intention of adopting an entirely new procedure. Some models which might prove to be useful references are:

- Iowa's requirement that school boards shall determine and rank educational needs. A manual[2] is available which explains the law (following page) and provides many useful assessment forms.

[2]Karilee Watson. The Planning Book for Needs Assessment. Ames, IA: ISU Research Foundation, 1978.

"The Board of Directors of each public school district and the authorities in charge of each nonpublic school shall:

1. Determine major educational needs and rank them in priority order.

2. Develop long-range plans to meet such needs.

3. Establish and implement continuously evaluated year-by-year short-range and intermediate-range plans to achieve the desired levels of pupil achievement.

4. Maintain a record of progress under the plan.

5. Make such reports of progress as the superintendent of public instruction shall require."

- The Dallas Planning Model is intended to involve educators, students, parents, the community, and the board of education in assessing needs, assigning priorities, and allocating resources as a part of the annual budgeting process.

- The Battelle Institute[3] has contracted with many local districts to conduct comprehensive needs assessments. Battelle projects typically involve objectives, planning priorities, and management of indicated curriculum development.

- An Educational Needs Survey[4] is administered by the State Education Department's Office of Federal Demonstration Programs to help determine priorities for that office and to assist the instructional branch of the Department in planning future programs. Pages 2-4 of this needs survey are reproduced on the following pages for your information.

Also, a series of questions which might be useful in initiating a needs assessment is provided in the Appendix on pp. 75-76. These questions are followed by a GOALS/CURRICULUM AREA MATRIX which could be used in planning needs (Page 77).

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[3]The Battelle Memorial Institute, 505 King Avenue, Columbus, OH, 43201.

[4]Available from the New York State Office of Federal Demonstration Programs, Room 860, N.Y.S. Education Department, Albany, NY, 12234, or from your local Optional Education Program representative.

School Need

Priority

1 NEED TO INCREASE BASIC READING SKILLS IN:

	LOW	MEDIUM	HIGH
1. PRIMARY POPULATION	☐	☐	☐
2. INTERMEDIATE POPULATION	☐	☐	☐
3. SECONDARY POPULATION (remediation)	☐	☐	☐
4. CONTENT AREAS	☐	☐	☐

2 NEED TO INCREASE BASIC WRITING SKILLS IN:

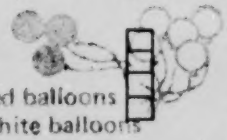
	LOW	MEDIUM	HIGH
1. ELEMENTARY POPULATION	☐	☐	☐
2. SECONDARY POPULATION	☐	☐	☐

3 NEED TO INCREASE BASIC LISTENING AND SPEAKING SKILLS IN:

	LOW	MEDIUM	HIGH
1. ELEMENTARY POPULATION	☐	☐	☐
2. SECONDARY POPULATION	☐	☐	☐

4 NEED TO INCREASE PUPIL COMPETENCIES IN MATHEMATICS:

	LOW	MEDIUM	HIGH
1. COMPUTATIONAL SKILLS (elementary)	☐	☐	☐
2. COMPUTATIONAL SKILLS (secondary)	☐	☐	☐
3. CONCEPTS K-12	☐	☐	☐
4. PROBLEM SOLVING SKILLS K-12	☐	☐	☐

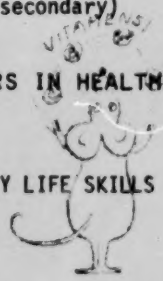


5 NEED TO INCREASE PUPIL COMPETENCIES IN SOCIAL STUDIES:

	LOW	MEDIUM	HIGH
1. SKILLS	☐	☐	☐
2. CONCEPTS	☐	☐	☐
3. CITIZENSHIP	☐	☐	☐
4. AREA STUDIES, HISTORY, AND GEOGRAPHY	☐	☐	☐
5. CROSS CULTURAL ETHNIC STUDIES	☐	☐	☐

6 NEED TO INCREASE PUPIL COMPETENCIES IN SCIENCE:

	LOW	MEDIUM	HIGH
1. ELEMENTARY SCIENCE	☐	☐	☐
2. PHYSICAL SCIENCE (secondary)	☐	☐	☐
3. BIOLOGICAL SCIENCES (secondary)	☐	☐	☐
4. EARTH/ENVIRONMENTAL SCIENCES (secondary)	☐	☐	☐



7 NEED TO IMPROVE PUPIL BEHAVIORS IN HEALTH/ PHYSICAL DEVELOPMENT:

	LOW	MEDIUM	HIGH
1. NUTRITION	☐	☐	☐
2. ALCOHOL AND DRUG ABUSE	☐	☐	☐
3. ADOLESCENT SEXUALITY AND FAMILY LIFE SKILLS	☐	☐	☐
4. HYGIENE	☐	☐	☐
5. PHYSICAL FITNESS	☐	☐	☐

8 NEED TO PROVIDE IMPROVED PROGRAMMING FOR:

	LOW	MEDIUM	HIGH
1. ALL STUDENTS IN FOREIGN LANGUAGES	☐	☐	☐
2. FOR STUDENTS OF LIMITED ENGLISH PROFICIENCY IN BILINGUAL EDUCATION/ENGLISH AS A SECOND LANGUAGE (preschool and elementary)	☐	☐	☐
3. PER 2. ABOVE (secondary)	☐	☐	☐
4. BOTH LIMITED ENGLISH PROFICIENT AND ENGLISH DOMINANT STUDENTS IN BILINGUAL EDUCATION	☐	☐	☐

School Need	Priority		
	LOW	MEDIUM	HIGH
9 NEED TO INCREASE PUPIL SERVICES IN CAREER EDUCATION:			
1. CAREER OPTIONS AWARENESS (elementary)	☐	☐	☐
2. CAREER ORIENTATION (intermediate)	☐	☐	☐
3. CAREER EXPLORATION (secondary)	☐	☐	☐
4. OCCUPATIONAL EDUCATION	☐	☐	☐
10 NEED TO DECREASE ABSENTEEISM AND DROP-OUT RATES OF STUDENTS:	LOW	MEDIUM	HIGH
1. IN-SCHOOL PROGRAMS	☐	☐	☐
2. ALTERNATIVE EDUCATIONAL PROGRAMS	☐	☐	☐
11 NEED TO IMPROVE SERVICE FOR HANDICAPPED STUDENTS:	LOW	MEDIUM	HIGH
1. PHYSICALLY HANDICAPPED	☐	☐	☐
2. MENTALLY HANDICAPPED	☐	☐	☐
3. EMOTIONALLY HANDICAPPED	☐	☐	☐
4. MULTIPLY HANDICAPPED	☐	☐	☐
5. NEUROLOGICALLY IMPAIRED	☐	☐	☐
6. MAINSTREAMING APPROACH SERVING HANDICAPPED	☐	☐	☐
7. PRESCHOOL HANDICAPPED	☐	☐	☐
8. WITH LIMITED ENGLISH PROFICIENCY	☐	☐	☐
12 NEED TO SERVE THE GIFTED/TALENTED STUDENTS:	LOW	MEDIUM	HIGH
1. THROUGH IDENTIFICATION, PLANNING, EVALUATION	☐	☐	☐
2. ACADEMIC/INTELLECTUAL	☐	☐	☐
3. VISUAL AND PERFORMING ARTISTIC	☐	☐	☐
4. LEADERSHIP	☐	☐	☐
5. BILINGUAL	☐	☐	☐
13 NEED TO INCREASE PUPIL DEVELOPMENT IN AFFECTIVE AREAS:	LOW	MEDIUM	HIGH
1 SELF-CONCEPT	☐	☐	☐
2. VALUES CLARIFICATION	☐	☐	☐
3. INTERPERSONAL SKILLS	☐	☐	☐
14 NEED TO IMPROVE INTEGRATED HUMANISTIC UNDERSTANDINGS IN PUPILS:	LOW	MEDIUM	HIGH
1. CIVICS	☐	☐	☐
2. THE ARTS	☐	☐	☐
15 NEED TO PROVIDE PROGRAMS IN COMPUTER USE:	LOW	MEDIUM	HIGH
1. LITERACY	☐	☐	☐
2. PROGRAMMING	☐	☐	☐
16 NEED TO PROVIDE SPECIAL PROGRAMS FOR MIGRANT STUDENTS:	LOW	MEDIUM	HIGH
1. ELEMENTARY	☐	☐	☐
2. SECONDARY	☐	☐	☐
3. SUMMER PROGRAMS	☐	☐	☐
4. WITH LIMITED ENGLISH PROFICIENCY	☐	☐	☐

School Need	Priority		
	LOW	MEDIUM	HIGH
17 NEED TO INCREASE COMMUNITY INVOLVEMENT IN SCHOOL PROGRAMS THROUGH:			
1. VOLUNTEER PROGRAMS	☐	☐	☐
2. SCHOOL/COMMUNITY ORGANIZATIONS	☐	☐	☐
3. IMPROVED PUBLIC RELATIONS	☐	☐	☐
18 NEED TO PROVIDE EDUCATIONAL SERVICES TO PRE-SCHOOL/EARLY CHILDHOOD POPULATIONS THROUGH:			
1. SCHOOL-BASED PROGRAMS	☐	☐	☐
2. PROGRAMS UTILIZING PARENTS	☐	☐	☐
19 NEED TO IMPROVE THE MANAGEMENT OF THE LEARNING PROCESS:			
1. MANAGEMENT OF PUPIL ACHIEVEMENT DATA (recordkeeping systems)	☐	☐	☐
2. MANAGEMENT OF PUPIL BEHAVIOR	☐	☐	☐
3. SYSTEMS FOR DIAGNOSTIC-PRESCRIPTIVE INSTRUCTIONAL STRATEGIES	☐	☐	☐
20 ADMINISTRATIVE/ORGANIZATION NEEDS OF THE DISTRICT:			
1. CURRICULUM DEVELOPMENT	☐	☐	☐
2. STAFF SUPERVISION AND DEVELOPMENT	☐	☐	☐
3. EVALUATION	☐	☐	☐
4. PLANNING	☐	☐	☐
21 NEED TO DEVELOP PERCEPTUAL/AFFECTIVE SKILLS THROUGH THE ARTS:	☐	☐	☐
22 NEED TO IMPROVE EVALUATION:			
1. EVALUATION OF INSTRUCTIONAL PROGRAMS	☐	☐	☐
2. ASSESSMENT OF STUDENT PERFORMANCE	☐	☐	☐
3. ASSESSMENT OF ADMINISTRATIVE PRACTICES	☐	☐	☐

OTHER NEEDS: (Please Specify)

_____

_____

_____

USING THE SCHOOL NEED CATEGORY NUMBERS, PLEASE SPECIFY YOUR THREE HIGHEST OVERALL NEEDS:

HIGHEST NEED: _____

SECOND HIGHEST NEED: _____

THIRD HIGHEST NEED: _____

CHECKLIST - CHAPTER 2 - NEEDS ASSESSMENT

	Yes	No	Not Applicable
1. Was a needs assessment model used?			
2. Is your needs assessment plan comprehensive?			
3. Did you follow the 4-step needs assessment on pp. 11-13?			
4. Do you have a satisfactory method for identifying differences between goals and actual practices?			

...REFERENCES

Dallas Planning Model. Dallas, TX: Communications and Community Relations Department, 3700 Ross Avenue, 75204.

English, Fenwick W. and Roger A. Kaufman. Needs Assessment: A Focus for Curriculum Development. Alexandria, VA: Association for Supervision and Curriculum Development, 225 North Washington Street, 22314.

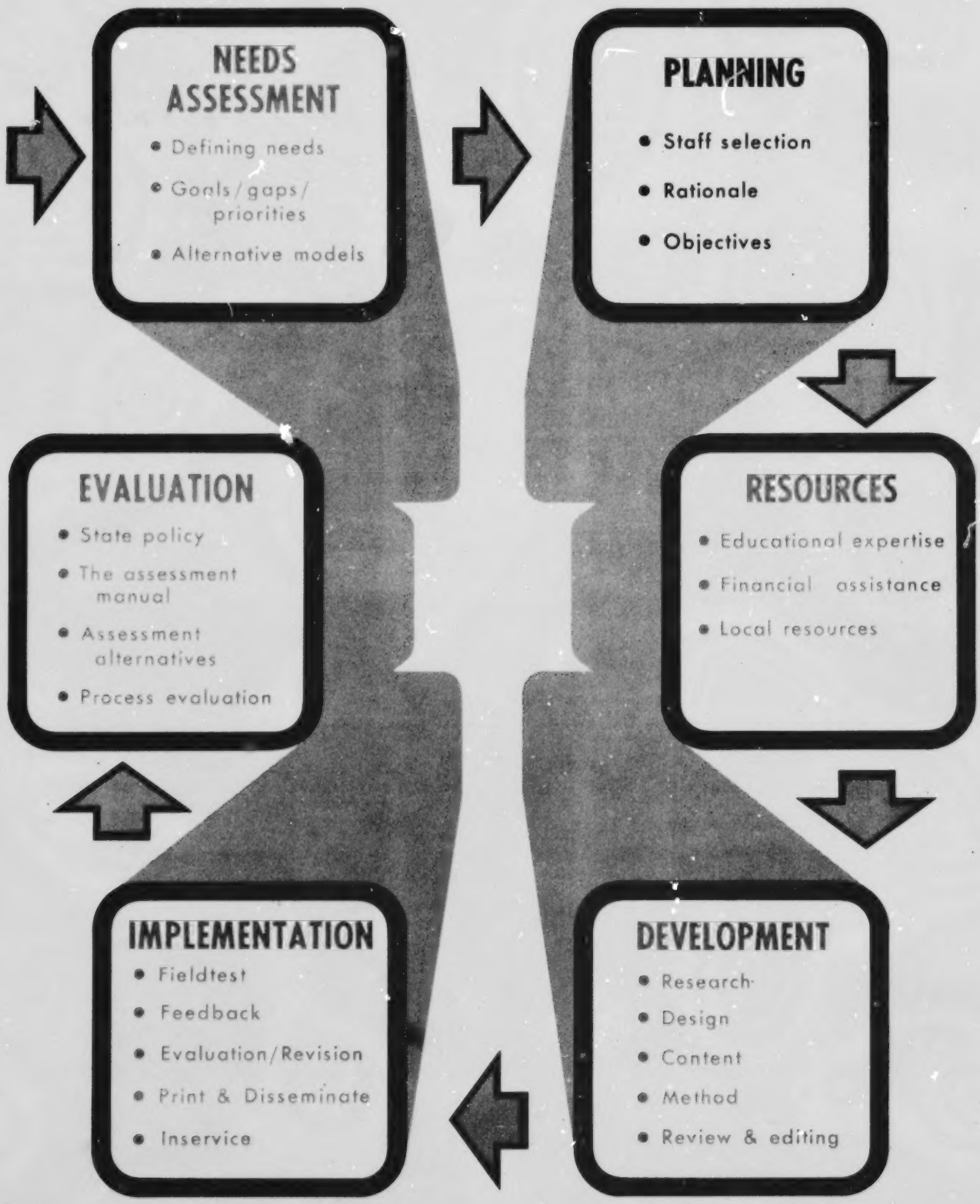
Goals for Elementary, Secondary, and Continuing Education in New York State. Albany, NY: The State Education Department, 1974.

Needs Assessment in Education. Trenton, NJ: State of New Jersey Department of Education, 08600.

Watson, Karilee. The Planning Book for Needs Assessment. Ames, IA: Iowa State University Foundation, Beardshear Hall, 50011, 1978.

Wiles, Jon W. "Developmental Staging: In Pursuit of Comprehensive Curriculum Planning," Clearing House, Vol, 50, February, 1977, pp. 274-277.

THE CURRICULUM DEVELOPMENT PROCESS



CHAPTER 3: PLANNING

...OVERVIEW

This chapter deals with selecting staff who will be responsible for both planning the project and carrying out the tasks described in the plan. Attention will be given to the specific tasks of selecting staff, preparing the plan, developing a rationale and specific objectives, and considering the resources available for the project.

Once the needs have been assessed, systematic curriculum planning is encouraged. It insures that all critical processes are included and that the sequence of planned activities is effective. BOCES and local districts must submit five-year plans for major programs. Smaller projects should also be carefully planned; such plans are, in fact, required for projects supported by Federal or special State funds. Whether or not there is outside funding, it is recommended that local curriculum developers produce a written plan describing project activities.

...SELECTING STAFF

After completing the needs assessment process discussed in the preceding chapter, the project director should examine the priority ranking of these determined needs. It is assumed, for the purposes of this handbook, that at least one, or some, of these needs may be satisfied by an effective program of curriculum change or improvement. Then, to avoid the pitfall that Robert Zais[1] describes,

> "Curriculum construction in the United States is generally conducted in a shockingly piecemeal and superficial fashion...",

the administrator should select, from among staff and from outside the district if appropriate, a team comprised of educators whose skills match the challenge presented by the needs that have been discerned.

As a guide to selecting the project planning team, consider that the responsibilities of the team will be as follows:[2]

- Study and make recommendations in curriculum matters
- Survey the curriculum in terms of the unmet needs of students
- Formulate long-term goals and objectives
- Determine areas for improvement and their order of priority
- Plan for committees to work on selected areas
- Motivate work of committees, define their responsibility and authority

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[1]Robert Zais. Curriculum: Principles and Foundations. New York: Thomas Y. Crowell Company, 1976, p. xi.

[2]New York State Association for Supervision and Curriculum Development. A Charter for Cooperative Planning. April, 1980.

- Provide for the use of outside consultants and make clear their functions
- Assess the need for funds and work space
- Coordinate and integrate work of committees and give guidance when needed
- Plan for interpretation of work to school staff and the public
- Plan for evaluation and needed revision

Swift involvement of all parties concerned is essential, whether through committee action, task forces, staff meetings, group orientation, newsletters, or personal communication. No one should feel left out, and everyone who will have a duty to perform will be at ease with it. Curriculum changes which depend on the energy or personality of a single individual are fragile. Thus, a district initiating a local curriculum project will wish to draw up a detailed schedule for preliminary activities in which all concerned parties participate. At this point, the project coordinator should establish definitive roles and responsibilities of individual staff members.

Beyond this, some generalizations about selecting staff members for the project are appropriate:

- For the sake of continuity, commitment, and with a view to the ultimate institutionalization of changes wrought by the project, some of these planning staffers ought to be classroom teachers who will be developing, fieldtesting, and implementing the instructional materials.
- If feasible, volunteers are always better than conscripts.
- Previous experience in developing curriculum is a fine recommendation.
- Equanimity and potential compatibility with other staffers are essential qualities if the project staff is to function as an effective team.
- Many of the writers should be from among those who will be the users (to the extent that is practical). However, ownership of the product may be spread among many of the intended users by inviting them to review draft editions, furnish activity ideas, etc., and without actually increasing the project staff to unmanageable proportions. Raymond H. Muessig[3] has some interesting "Arguments For...and Against Involving Everyone" in a current project.
- Also, if practical, one or more of the project staff should be "outsiders" who would tend to be more objective about goal achievement, project progress, and the like. These "outsiders" might be consultants hired to edit materials, prepare activities in specialized areas, do research, train teachers (for the inservice phase), or evaluate the project.

...THE PLAN

There are several good reasons for writing out a project plan, onerous as the task may seem to people already very busy. First, the proposal

[3]Raymond H. Muessig. "Some Thoughts on Curriculum Improvement." In, Social Studies Curriculum Improvement, National Council for the Social Studies, Bulletin No. 55, 1978.

document is a means of informing others about the intended project — administrators, other faculty, the school board, the State, or possible funding sources. Second, the act of composing the plan forces the writers to consider carefully some phases of planning that they might otherwise have overlooked or taken for granted. Third, the proposal provides a record of agreed-upon plans. Fourth, the proposal becomes an operational device to use in monitoring progress on the project. The elements (1.-6.) of a suggested format for a written plan follow. (An example of a BOCES-sponsored curriculum development plan is included in the Appendix on pp. 78-79. Following this plan, there is a sample format for a short written plan similar to that which has been used for Title IV-C mini-grants.)

1. Rationale - Synopsis of the problem and its intended solution; usually stated in terms of the district's philosophy and its goals as they were used in the needs assessment.

To be a complete document, the written plan for a local curriculum project should contain a brief rationale section in which there is an explanation of why the project is being initiated. Ideally, the rationale should include a statement of the educational philosophy espoused by the district[*], an identification of some educational change required by the logic of that philosophy, a set of goals, the needs assessment results indicating that there is a gap between the ideal and actual situations, and a list of the problems which stand in the way of filling the needs gap. Where appropriate, reference should be made to findings or conclusions from the literature of educational research. (See Chapter 5.)

> A rationale that has been carefully thought out and documented from the literature of educational research gives needed substance and consistency to curriculum and method.

2. Objectives - A detailed description of the learning and behavioral outcomes anticipated. These objectives would include the very specific aims related to classroom instruction using the developed materials.

In any enterprise, it is frustrating when one does not know why something is being done nor how to tell when it is finished. Thus, preparing clearly written objectives for a set of instructional materials has some obvious advantages:

- Everyone concerned has the same understanding of the purposes of the instruction.
- Curriculum planners can proceed to prepare course outlines and sets of learning activities which fit with the objectives and provide continuity to the program.
- Students can learn what is expected of them.
- Assessment of progress can be planned in a way which will enable teachers, students, and other parties to find out if the objectives of the instruction have been achieved.

Objectives have often been stated vaguely or have contained abstract terms which the practitioner has difficulty converting into activities or

[*]See page 73 of the Appendix.

measuring when the time for assessment arrives. Perhaps the most celebrated of the vague terms used is the verb "appreciate," which we all think we understand until we attempt to analyze it. Does the objective — "To teach students to appreciate music" — mean that students will learn to enjoy music? listen to it? understand it? recognize it? remember the name of the composer? Lacking answers to these questions, the teacher of the music appreciation course typically tests the students' "appreciation" by giving them questions of fact, such as "Who wrote Petrouchka?" or "What instrument has lengthy solo parts in "Prelude a I 'Après Midi d'une Faune?"

The objectives can be and should be expressed in such a way that the related method and assessment procedures can be surmised. As many writers have pointed out, in the statement of objectives the choice of verb is critical. Long lists of specific and non-specific verbs are available in the references provided. For example:

Vague	Clear
Know	Write
Understand	Recite
Appreciate	Identify
Believe	Construct

In amplification of "appreciation," which is an acceptable verb in a goal statement, the objective could be expanded to include whichever of the following statements the teacher subscribes to:

"Will learn factual information, or will score 80% on a test of factual information."

"Will choose to listen to classical music twice as often."

"Will express feelings indicating a liking of music as judged by scores on a test of attitude towards music."

"Will voluntarily start taking lessons on a musical instrument."

One complete statement of objectives regarding appreciation of music then could be:

"By June, 1986 (A) the 25 students (B) enrolled in the project music appreciation course (D) will show a significant improvement in their attitude toward classical music (C) as measured by differences between pre- and post-test scores on the Johann Mozart Test of Music Appreciation (E)."

The most important qualities of objectives are that they clearly communicate the writer's intent and that they reduce the number of alternatives to reaching the desired outcome. Remember that objectives are

outcomes, not methods! An objective should be specific enough, as in the preceding, music appreciation example, for the reader to know at once what is expected in terms of the:

A Time when objective will be accomplished
B Persons affected
C Behavior changed
D Method used to bring about change
E Criterion for success

In a development project of the nature suggested by this handbook, the objectives will most likely be generated by staff. Some objectives, however, may be taken from Department syllabuses and others may be part of learning systems and materials which will be purchased to supplement the district curriculum effort. Lists of measurable objectives may also be purchased, thus providing a bank of items from which ones appropriate to the project may be selected. Details on how to write objectives are complex and lengthy enough that the reader is invited to study such references as those listed at the end of the chapter.

Project goals should provide a logical outline of purposes that organize detailed objectives, which in turn guide the selection of learning experiences.

3. *Resources - A description of the local support, both in kind and actual dollar expenditures, that have been committed to the curriculum development project; and, any external sources of money, expertise, research, facilities that can be expected to subsidize this effort. The accounting of these resources and anticipated expenditures against them will become the project budget.* (See Chapter 4.)

4. *Research - A summary of the pertinent references in current literature and practice which will be investigated preparatory to the adoption of methods and strategies and to the development of learning materials.*

5. *Timetable - A schedule of the activities which will occur during the development and implementation phases of the project.* (See Chapters 5 and 6.)

6. *Evaluation Plan - A description of the techniques which will be employed to measure student achievement, teacher effectiveness, and the utility of the materials.* (See Chapter 7.)

...FEASIBILITY STUDIES

Special mention should be made of the feasibility study[5] which has merit when there are some doubts about plunging into a full-scale curriculum development or revision project. The effectiveness of a new program can be tested without a large investment. The plan for a pilot will have among its objectives: testing effectiveness on a small scale, reducing costs, using fewer students, and attention to a speculative extension of the program on a larger scale. (See also Chapters 6 and 7.)

[5]W. E. Hathaway. "Educational Feasibility Studies: A Conceptual Framework." Alberta Journal of Ed. Research, Dec., 1976, pp. 305-310.

CHECKLIST – CHAPTER 3 – PLANNING

	Yes	No	Not Applicable
1. Did you consider the criteria on page 21-22 in selecting staff for the project.			
2. Did any staff members volunteer for the project?			
3. Did you prepare a written plan?			
4. Did you use the format on pages 22-24?			
5. Does the rationale include a reference to the district philosophy, goals, and the needs assessment?			
6. Do your objectives all specify:			
Time?			
Person?			
Behavioral change?			
Method used?			
Criterion for success?			

...REFERENCES

Bloom, Benjamin S. (et al). Taxonomy of Educational Objectives – The Classification of Educational Goals, Handbook I: Cognitive Domain, Handbook II: Affective Domain. New York: David McKay Co., Inc., 1956.

Gagné, Robert M. The Conditions of Learning, 3rd ed. New York: Holt, Rinehart and Winston, 1977.

Lawler, Marcella, ed. Strategies for Planned Curriculum Innovation. New York: Teachers' College Press, 1971.

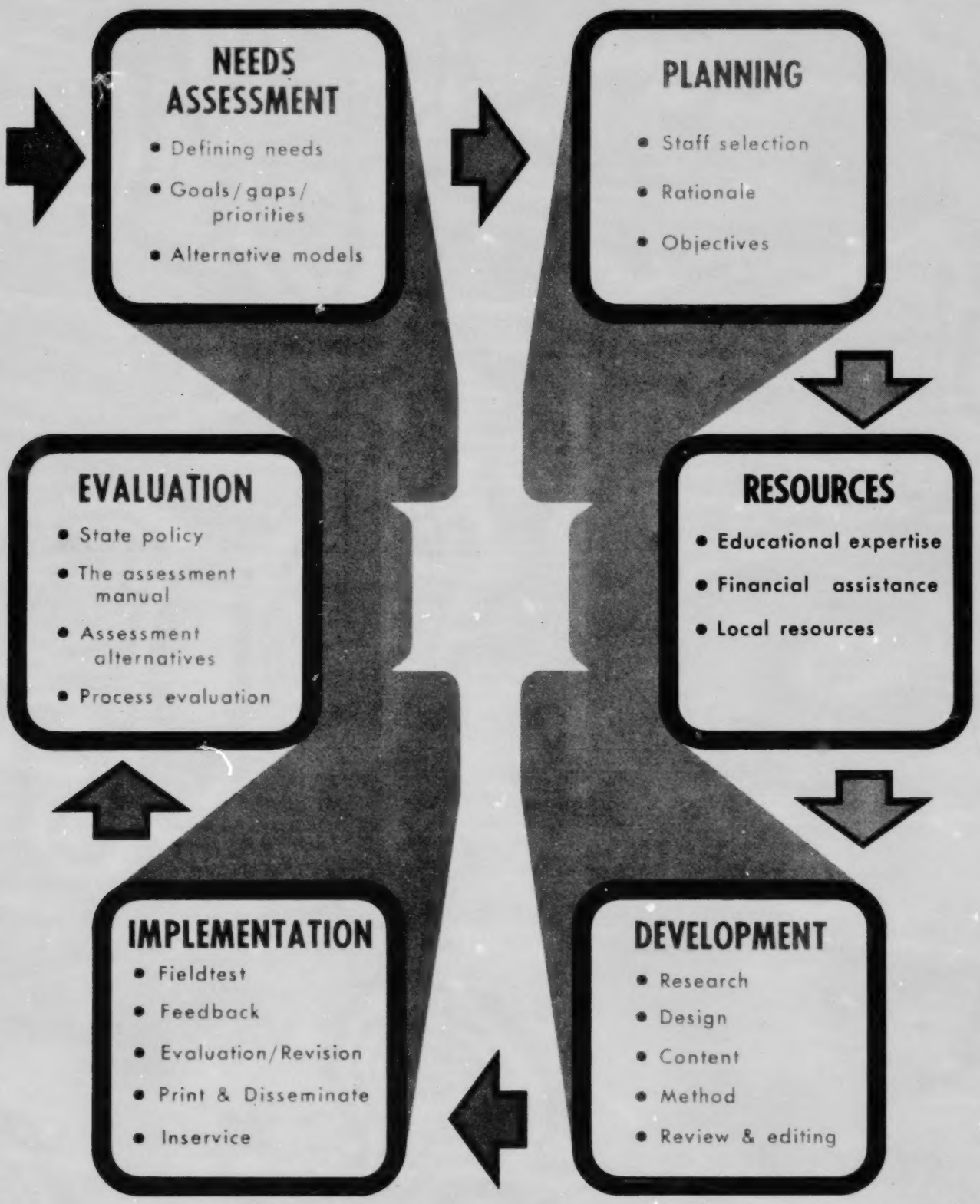
Mager, Robert F. Preparing Instructional Objectives. Belmont, CA: Fearon Publishers, 1962.

Muessig, Raymond H. "Some Thoughts on Curriculum Improvement." In, Social Studies Curriculum Improvement, National Council for the Social Studies, Bulletin No. 55, 1978.

Roberts, Bernice and Robert S. Gilchrist. Curriculum Development: A Humanized Systems Approach. Belmont, CA: Fearon Publishers, 1974.

Wales, Charles E. "Should Curriculum Planning Start with Subject Matter?" Journal of Educational Technology Systems, Vol 4, No. 1. Jan.-Mar., 1975.

THE CURRICULUM DEVELOPMENT PROCESS



CHAPTER 4: RESOURCES

...OVERVIEW

This section presents answers to questions about where and how a school district can obtain expert advice and funds for developing curriculum locally.

...INTRODUCTION

As part of the overall plan for the project (See Chapter 3.), planners need to organize resources. Fortunately, there are many sources of assistance, both educational and financial, available for developing local curriculum. It is the responsibility of the project coordinator to know what these resources are and where they are available, of what use they can be in enhancing the local development project, and how they may be obtained.

...EDUCATIONAL EXPERTISE

Current, informed, and experienced assistance is available from the following sources:

The New York State Education Department

On the one hand, in the sense that it assumes responsibility for the broad parameters (syllabuses) and the minimums (mandates, competencies) for instructional programs throughout the State, the Education Department provides guidelines for local curriculum development.

Mandates...These are the requirements for the public school educational program which are found in Education Law, Regents Rules, and Commissioner's Regulations, and which help assure that every student throughout the State receives an education of comparable quality. (These mandates are described in the SED publications cited on page 2.)

Syllabuses...The Department prepares guides known as syllabuses for academic subject areas which give direction to the instructional programs in schools of the State. Local school districts develop local courses of study based upon these guides. State Regents examinations are based upon these syllabuses and, for local courses developed in these areas, districts should be cognizant of this fact and its implications for their programs.

These guidelines do imply regulation, but they are the products of many years of assessments and reassessments of what children should gain from the educational process. Once they have this foundation or framework, local education agencies may tailor their programs to the particular, local, and dynamic needs of their school communities.

On the other hand, the Department provides technical assistance and advice to enable schools to build local programs upon this framework established at the State level. A portion of the Department's Organizational Chart is provided on pp. 81-82.

- **Bureau of General Education Curriculum Development** (Room 314-F EB) - This bureau provides copies of State syllabuses and helps to developing local curriculum, locating curriculum resources, and evaluating curriculum. Together with the subject bureaus, it coordinates the preparation of State syllabuses, approves courses of study submitted by schools to the Department, and reviews Cooperative Service curriculum proposals from the BOCES.

- **The Subject Bureaus; English, Science, et al** (See SED Organizational Chart, on page 82.) - These bureaus have responsibility for instruction, grades kindergarten through 12. Among the many services they can provide to schools developing local curriculum are the following:

  - Copies of their respective syllabuses
  - Workshops, conferences, and consultations on matters of instruction and curriculum development
  - Newsletters which report on current trends, professional developments, and promising practices
  - Technical assistance regarding program requirements, teaching techniques, course approvals, local projects, and test construction and other means of evaluation

- **Curriculum Laboratory** (Room 209 EB) - This resource area in the Department houses current textbooks, courses of study, and other curriculum materials published by school districts in New York State and in other states as well. A requested course of study may be used in the Curriculum Laboratory or borrowed through the State Library Inter-Library Loan Service.

- **Center for Learning Technologies** (Room 325 EB) - The center provides professional assistance and technical advice regarding all forms of aural and visual hardware and materials. Services in computer assisted instruction, media production services for informational training, awareness materials in all communications formats, and dissemination techniques are also available from the center.

- **Bureau of School Library Services** (Room 676 EBA) - This office can provide suggestions as to how school libraries can aid local curriculum efforts.

- **Bureau of Bilingual Education** (Room 304 EB) - This bureau provides help in developing local curriculum for non-English-speaking students or students in an English as a Second Language (ESL) program. The bureau produces curriculum publications as well.

- **The New York State Library** - Through its Interlibrary Loan Service, the State Library makes materials available to schools. (Consult your local librarian or the Interlibrary Loan Office, New York State Library, CEC, Empire State Plaza, Albany, NY 12230.)

Boards of Cooperative Educational Services (BOCES)

The local BOCES is organized to provide a number of services including support for local curriculum development in its region. Many of these

services, including curriculum, are made available through the Cooperative Service Requests (CO-SER) for State aid that are made, at the behest of local districts, by the BOCES to the State Education Department. The types of specific assistance from BOCES to the local district and its project include: workshops, inservice and management training, group purchasing of supplies and equipment, and technical assistance. Most BOCES have considerable background in curriculum development and local school districts would do well to avail themselves of this experience.

The procedures followed by BOCES in proposing curriculum development projects for local districts are outlined in a manual, CO-SER Development for Curriculum and Staff Development for Teachers/Teacher Assistants. The manual, which is a handbook provided to the BOCES by the Department's Bureau of School District Organization, also includes descriptions of the subject area priorities that determine the nature of curriculum projects and inservice programs to be undertaken by BOCES and its constituent districts in any given year.

...FINANCIAL ASSISTANCE

Local Budgets

From the point of view that curriculum development is a responsibility of the local community working through its school board and professional staff, the usual way to fund such curriculum work is through the tax levy budget, or general fund.

Categories of expenditures which may be needed for initiating study of the curriculum and for putting new methods into practice appear on the next page. Some suggestions on explaining certain kinds of expenditures are included here as an aid to the curriculum developer who may otherwise fail to describe some critical item of expense. Local budgets will contain the same categories in different order.

Local curriculum developers should realize that almost every budget contains some funds for contingencies. It is often possible to find seed money to plan or begin curriculum projects in a budget which has already been approved. Future budgets should be adjusted to anticipate curriculum development activities.

When formal requests are made to the school board for inclusion of funds for curriculum development, approval will be more likely if the folllowing have been given consideration:

- **Justification**...Accountability data, needs assessment information, or comparable information to support the request for funding are included.
- **Product**...The product the local administration may expect to see as a result of this activity is identified - curriculum guide, resource units, learning activity packages, etc.
- **Process**...The plan for developing the product is described. Budget requests are linked directly to proposed stages of the development process.

- **Participants**...Answers are provided to these questions: Who will be doing this project if funds are provided? What indications are there that these participants are willing and available? What is their competence?

Critical Expenditures Categories in a Typical Budget

Object	Comments, Cautions
Personnel Administrator Teachers Aides Substitutes	Teachers' salaries are set by local contracts. Substitutes may be needed to replace teachers who receive inservice training.
Benefits	The district business office can provide estimates of benefits for certified and classified employees. In 1982 and beyond, the percentage may be as high as 38%.
Equipment	"Equipment" is something that lasts more than a year and costs more than $50 (State) or $300 (Federal) to purchase. In a period of inflation, equipment costs may significantly rise between the time of original quotation and the time of the order.
Supplies Textbooks Library Books Kits AV Software Office Supplies, etc.	It is important to anticipate all categories of supplies to be needed. "Supplies" are defined as cheaper than equipment and less durable.
Contractual Agreement Consultants Printing and duplication costs	Consultants may also need, in addition to their fees, reimbursement for preparation if they are to conduct a training program. Printing and duplicating are expensive.
Travel x miles @ y per mile	Mileage rates set by local contract should be specified. Commuting is usually not authorized.
Indirect Cost (Federal projects)	The rate for each district is set by the State Education Department's Division of Educational Finance upon submission of an application form supplied by the Division. The rate represents the approximate ratio of administrative to overall costs.

Federal Funds

The Federal government authorizes millions of dollars for education each year, much of which is administered by the States. Certain programs are, however, competitive or their funds are limited and are, therefore, not realistic prospects for support. However, some funds described below may merit application if the category fits the needs of the local district. Others are categorical programs for which most or all schools are eligible.

- Education Consolidation and Improvement Act of 1981 (ECIA)...Title I, Title IV-C and Title II of ESEA together with 28 other categorical programs will be included as part of the new block grant act. This act, which will go into effect on October 1, 1982, has three chapters:

  - Chapter 1: Titled "Financial Assistance to Meet Special Educational Needs of Disadvantaged Children." Chapter 1 is a rewrite of ESEA Title I and contains only minor programmatic changes. The act disburses funds for programs and projects which help to "meet the special needs of educationally deprived children." Chapter 1 allocations will be determined by a formula which reflects the poverty count of school age children, 5-17 years, residing in the school district and by other provisions established in Section III, ESEA Title I.

For information on Chapter 1, write:

Director, Division of Federal Education Opportunity Programs
Room 878 EBA
State Education Department
Albany, New York 12234
(518) 474-1144

  - Chapter 2: Titled "Consolidation of Federal Programs for Elementary and Secondary Education." Chapter 2 combines 30 Federal categorical programs into a single state grant. The Education Department will distribute funds to local school districts according to a formula based on each district's public and nonpublic school enrollment. The Chapter 2 consolidation contains four subchapters:

A. Basic Skills Development: Reading, Oral Language, Writing, Arithmetic.

B. Educational Improvement and Support Services:

School library resources, textbooks, other materials
Equipment and instructional materials
Programs to improve local educational practices
Reduction of minority group isolation
Guidance, counseling, and testing
Programs to improve planning, management, and implementation
Teacher training, inservice education
Desegregation program

C. Special Projects: See Appendix, page 83.

D. Secretary of Education Discretionary funds: See Appendix, pages 83, 84.

For further information on Chapter 2, write:

Coordinator, Chapter 2 Local Assistance
Administrative Office
Room 860 EBA
State Education Department
Albany, New York 12234
(518) 474-1280

- Chapter 3: Titled "General Provisions." Chapter 3 outlines administrative and accounting requirements and limits the authority of the Secretary of Education to issue regulations as well as the legal standing of those regulations.

A number of programs were not included under the Chapter 2 consolidation (See list on page 83.) Three of these opportunities are described below.

- **Bilingual Education (ESEA VII)**...Districts with a substantial number of students speaking another language but having limited proficiency in English may apply to the United States Department of Education, Title VII, ESEA, for funds to support bilingual education.

Federal grants do not include money for teachers' salaries but may be applied towards administration, training of teachers, materials of instruction, and salaries of teacher aides.

Information on this program can be obtained from:

The New York State Education Department
Bureau of Bilingual Education, Room 304 EB
Albany, NY 12234
(518) 474-8775

- **Public Law (PL) 94-142, Education of the Handicapped**...As most district officials are aware, PL 94-142 authorized increasing amounts of grants to states for education of handicapped children. *Per capita* and other payments are made through the SED Division for the Handicapped under regulations which are so complex and changed so frequently that the best advice to the applicant is to seek information directly from:

The New York State Education Department
Division for the Handicapped
Room 1075 EBA
Albany, NY 12234
(518) 474-6479

- **The Bureau of Occupational and Adult Education in the United States Department of Education**...Disburses funds to the states in support of education for the world of work. Within New York most of the money goes to BOCES and large cities, where large technical centers are operated. For information write:

The New York State Education Department
Office of the Assistant Commissioner for Occupational
and Continuing Education
99 Washington Avenue
Albany, NY 12230
(518) 474-3981

The New York State Education Department
Division of Continuing Education
Room 1607 TT
Albany, NY 12234
(518) 474-8940

- **Replication of National Diffusion Network (NDN) Projects**...N.D.N. is a nationwide system of assistance to local districts in replicating over 200 demonstration projects which have been judged by the Joint Dissemination Review Panel to be successful and replicable. N.D.N. operates through the interaction of two kinds of funded projects - Developer/Demonstrators and State Facilitators. Details of the programs are explained in a catalogue which should be available in the office of the Optional Education Program (OEP) Representative in the local BOCES. The catalogue can also be obtained ($5.00 prepaid) from the:

  Order Department
  Far West Laboratory for Educational
  Research Development
  1855 Folsom Street
  San Francisco, CA 94103

  Demonstration projects which are available are listed under these section headings of the catalogue:

  - Alternative Schools
  - Bilingual and Migrant Education
  - Career or Vocational Education
  - Early Childhood Education
  - Environmental Education
  - Training of Administrators
  - Reading, Language Arts, and Math
  - Special Education, Learning Disabilities
  - Health, Human Behavior, Physical Education

  Information: New York State Facilitator
  New York State Education Department
  Room 860 EBA
  Albany, NY 12234
  (518) 474-1280

- **Other Agencies**...Funds are dispensed by 70 to 80 other agencies in the United States Department of Education; by several agencies not yet in the Department of Education, such as the National Institute of Education; and by non-Federal agencies such as the National Humanities Faculty. (If interested in exploring further, obtain one of the references listed on pages 36-37 and read up on interesting programs in the list, paying particular attention to the ratio of grants to funds available.)

State and Regional Support

There is, unfortunately, no single publication which sums up the various programs sponsored by New York State. The State, however, has

organized a network of Optional Education Program representatives in the BOCES who keep up to date on announcements of individual program opportunities.

Boards of Cooperative Educational Services (BOCES) offer many types of support for local projects (See pages 28-29.) including an avenue to State aid for districts with curriculum needs. The Cooperative Service Request is a means by which two or more districts working together on a curriculum project may be aided in proportion to the individual district's aid formula. Advance planning is advised in preparation for the submission of a preliminary service request in October.

Foundations

There are thousands of private foundations in the country, and they pay out millions of dollars a year for educational projects. Experience has shown, however, that foundations are not generally a rich source of funds for local school districts. If you know someone on a Foundation Board, or have a plan which fits exactly into a certain foundation's priorities, you may have success.

To explore this possibility, examine the Foundation Directory[1] or visit the Foundation Library, 888 Seventh Avenue, New York, NY 10019, (212) 975-1120.

Most local curriculum development is performed without external funding. Curriculum projects are built into the budget or undertaken by regular staff through curriculum committees, departmental groups, or by individual teachers and administrators. Large districts may have curriculum divisions whose job it is to study, invent, and introduce curriculum change.

...LOCAL RESOURCES

The School

The school's administrators, teachers, its students, and the physical plant itself are primary resources for any project. In addition:

- The adult education program affords an opportunity to satisfy some project training needs at minimal cost.
- Parent-Teacher Associations occasionally support certain school activities (on a small scale) which have not been budgeted.
- The practice of compensating teachers for graduate credit suggests a means of supporting staff development related to a district curriculum project.

[1] D. Lewis Marianna, ed. The Foundation Directory. 6th ed. New York: The Foundation Center, 1977.

- Substitute teachers (already budgeted) may free regular teachers for staff development and curriculum planning.

The Community

The community offers the following valuable resources: libraries, museums, the media, business and industry, social and cultural organizations, local historians and historical societies, and area colleges and universities. Also:

- Volunteers from the community, parents, senior citizens

- Local industries often will help. For example: A large paper company donated substantial amounts of exotic wood to the wood-carving and wood-sculpture program of a local high school; and, a major manufacturer in a small industrial city donated cash directly for the purchase of a complete videotaping system to help the local school expand its program in drama, speech, and communications.

Leave no stone unturned! There are more resources available to the enterprising person than meet the eye. Consider the following:

- There are ways of obtaining free or cheap materials. In fact there is a series of publications entitled Free and Inexpensive Materials available from:

  Superintendent of Documents
  U.S. Government Printing Office
  Washington, DC 20402

- In the field of reading, paperbacks are available at half price from R.I.F. (Reading is Fundamental).

  475 L'Enfant Plaza
  Suite 4800
  Washington, DC 20560

- Also, guides which include

  - Elementary Teachers Guide to Free Curriculum Media
  - Educators Guide to Free Filmstrips
  - Educators Guide to Audio and Video Materials

- Collections of curriculum guides assembled at BOCES libraries and at the libraries in nearby postsecondary institutions are useful.

- Program descriptions, curriculum bulletins, and similar materials available from schools participating in various dissemination and diffusion projects can be helpful also.

- Human resources are available nearly everywhere — consultants from the State Education Department, BOCES, DOE regional office (NYC); specialists from other districts; staff from area colleges or universities; State and national subject-oriented organizations (e.g., State-National Council for the Social Studies); educational experts from other public agencies...

CHECKLIST - CHAPTER 4 - RESOURCES

	Yes	No	Not Applicable
1. Have you made maximum use of local budget resources?			
2. Have you identified free or inexpensive human sources? Which? _____			
3. Have you searched for free or cheap materials? Which? _____ _____			
4. Which of the following financial resources have you sought? Federal Government State Government Foundations BOCES			
5. Have you been in communication with your OEP Representative?			
6. Have you sought expert assistance from professional educators and others as in the list on p. 35? Which ones? _____ _____			

...REFERENCES

The Catalogue of Federal Assistance Programs is available from:

Education Funding Research Council
752 National Press Building, N.W.
Washington, DC 20045
(202) 737-4700

Federal Focus is available from:

AASA
1801 N. Moore Street
Arlington, VA 22209

The Federal Register is published daily and contains laws and guidelines on all Federal programs.

Office of the Federal Register
National Archives and Records Services
General Service Administration
Washington, DC 20408

Commerce Business Daily lists Requests for Proposal from Federal Government agencies.

Superintendents of Documents, #375
Government Printing Office
Washington, DC 20402

Education Funding News is published weekly and contains up-to-date and useful news about congressional action on grant legislation, summaries of regulations, and suggestions on submitting proposals.

Education Funding Research Council
752 National Press Bldg., N.W.
Washington, DC 20045
(202) 737-4700

THE CURRICULUM DEVELOPMENT PROCESS

CHAPTER 5: DEVELOPMENT

...OVERVIEW

This section of the handbook describes a very important phase in the process of developing curriculum: the preparation of instructional materials. Some detail is provided concerning the steps in this phase, including: attention to research; selection of content, teaching methods, and materials; and writing, editing, and revising learning activities.

...INTRODUCTION

As used in this handbook, the word "curriculum" denotes the content of an educational program, i.e., the learning to be imparted, the course outlines, or the behaviors identified as the program objectives. "A curriculum comes into being when someone decides what will be learned, how much time will be spent, and what order will be followed."[1] Curriculum, or content, is distinguished from "instructional method," which is the way that learning situations are selected and used to bring about the learnings identified in the curriculum.

> The curriculum, or configuration of learning activities, is the heart of instruction and should be carefully planned in the light of the project rationale, the program goals, and the statements of objectives.

The two terms, "curriculum" and "method" overlap, of course, in ordinary use. A "curriculum guide" will, for instance, usually contain advice on the selection of methods. For example, if a teacher plans a field trip to an aquarium, the "curriculum" aspect is marine biology and the learnings obtained from the trip. "Method" consists of the technique of teaching about fishes by preliminary explanation, busing children to the aquarium, showing them the fish, and reviewing their learnings on return to school.

It is essential that the staff develop in advance an organizational scheme for this phase of the project. Such a scheme, to be derived from the objectives (Chapter 3) would incorporate the:

- Scope and sequence or delineation of the grade levels and areas to be encompassed by the materials
- Specific content areas to be emphasized
- Form of articulation desired for the subtopics and grade levels
- Skills expected to be demonstrated
- Behaviors anticipated
- Resource materials to be tapped.

Keep in mind the type(s) of evaluation that will be used to measure success, since that will have considerable bearing upon the foregoing.

An example of a scheme for organizing and tabulating some of the information called for above appears in the Appendix on page 77.

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[1] Fenwick W. English. Improving Curriculum Management in the Schools (Occasional Paper 30). Washington, DC: Council for Basic Education, 1980.

The experience of other educators who have attempted to bring about changes in curriculum and teaching methods should be helpful to the project staff. Adaptations of successful curriculum materials and practices which have been in use for some time elsewhere may save considerable staff time and effort. For these reasons, it is advisable to review the literature of educational research and report findings before launching the writing phase of the project. Be certain that permission is received and credit given for any such materials which are discovered and used in conjunction with original project materials.

Searching the literature is not easy, and the results are often discouraging. The searcher, eager to locate conclusive findings on the success of some method, frequently discovers that the reports are inconclusive, contradictory, or speculative. Nevertheless, the effort to survey the research should be made. References which may be useful are listed below:

- Educational Resources Information Center (ERIC) now contains thousands of microfiches including reports on Federal projects, scholarly articles, research sponsored by universities, etc.
- Education Programs and Studies Information Service (EPSIS) is a New York State variant of ERIC. (Room 330, New York State Education Department, Albany, NY, 12234. Telephone [518] 474-3759.)
- The Encyclopedia of Educational Research, although a bit out of date, contains summaries of research in many fields with references to original articles and reports.
- Psychological Abstracts, now with a comprehensive index, contains summaries of research in psychology and education.
- The Education Index identifies articles from several hundred periodicals.
- Textbooks contain reviews of research on the precise subject under investigation.
- The Yearbooks of the National Society for the Study of Education are dedicated to single subjects, such as education of the gifted, and usually contain summaries of the research.
- Among the research periodicals, the Review of Educational Research is particularly helpful, summarizing as it does the research in special fields and bringing the summaries up to date every few years.
- Summaries of doctoral theses from many universities are reproduced in Dissertation Abstracts.

In addition, it is usually helpful to inspect curriculum guides which have been produced by other agencies. From such models the local project writers can draw ideas for activities, organization of the guide,

references of mutual value, and clues as to original kinds of learning needed for the program. Of the many sources from which sample or model curriculum guides are available, the following are among the most useful:

- New York State Education Department. Write to the Bureau of General Education Curriculum Development for its brochure of curriculum publications which lists syllabuses, courses of study, units of instruction, and other curriculum materials developed for use by local school districts.

- BOCES and Large City School Districts.

- A.S.C.D. The Association for Supervision and Curriculum Development has an annual exhibit of curriculum materials and publishes a bibliography of curriculum guides exhibited that year. The N.Y.S. A.S.C.D. also has exhibits at its annual conference.

- Professional Subject-Matter Associations such as NCTM (math), NCTE (English), etc. also provide materials.

- Commercial Vendors. Some book companies will provide examination copies of textbooks or other copyrighted materials which may be of value to the local curriculum developer.

...DESIGN

Curriculum is usually described in terms of scope, meaning, extent, or "coverage," and sequence — the order of topics. Beyond that there are certain comprehensive structural designs which should be considered in planning lengthy curriculum programs. In social studies, for example, the traditional approach has been the chronological study of historical events, but recently the approach of social studies courses has included as well the analysis of problems in the social studies field. Other formats include concentration on individual projects in which each student does a considerable amount of private study resulting in a report of some sort. In science there is the laboratory approach, as compared with the textbook or lecture approach.

Whatever is selected, there are implications for the organization of the curriculum project. If, for example, problem-solving is the focus of the design, the local curriculum planner can derive assistance from references on that approach.

...CONTENT

Having considered the objectives, and the results of the research, the project staff should be nearly ready to organize the cognitive material, skills descriptions, and behavioral expectations into a framework of cohesive, well-articulated instructional units. It may be helpful at this point to employ a consultant who would provide the writing staff with a measure of training or reacquaintance with the fundamental characteristics or criteria for curriculum materials.

As staff members begin to prepare the new or revised curriculum materials, the following characteristics of effective, meaningful curriculum should be kept in mind:

- The student needs to be met are clearly stated.
- The relationship between this new material and the total, developmental program in the subject area is adequately described.
- The objectives for the specific skills, knowledge, and attitudes the students will have acquired at program conclusion are enumerated.
- The descriptions of learning experiences are:
  - Learner-centered
  - Activity-oriented
  - Appropriate for students' levels of development and learning styles
  - Amenable to individualization
  - Significant and worth doing; relevant for the learner
  - Varied in medium, approach, and level of complexity
  - Cognizant of cultural milieu
  - Equally appropriate for both girls and boys
- The resource materials to be used are thoroughly documented.

The completed local curriculum program will normally have a format similar to the outline that follows:

Rationale

Goals and Objectives

Scope and Sequence (Content outline, skills, concepts, understandings, etc.)

Units of Instruction

- Objectives (in terms of concepts, skills, attitudes)
- Learning Activities
- Materials
- References
- Logistics (Procedures)
- Tests

Resources

Evaluation

...METHOD

Method may be defined as "the way learning situations are selected, or organized, or used, and the way materials are selected and used to bring

about the learnings listed topically under curriculum." Method can be further defined by listing all of its components:

- Organization: ungraded or cross level classes
- Logistics: number, grades, timing, staff grouping
- Strategies: problem solving, lecture method, laboratory, learning center
- Interaction procedures: Socratic method, simulation, lecturing
- Measurement: assessment as part of the regular class program

Since these components have varying significance in each subject field or for different kinds of students, the choice of methods can be a complex process. Some general principles can be advanced, however, which may be of use:

- Methods chosen should be in harmony with accepted conclusions from the psychology of learning. For instance, it may be ineffective to use the lecture method on some topic for which laboratory work is known to be more productive.

- Alternative methods should be considered before a final decision is made.

- Methods should be harmonized with other elements of curriculum development such as objectives and staff development.

- Methods should be selected which help the individual learner.

Learning psychology. Ralph Tyler[2] cites several generalizations about selecting learning experiences:

- Students must have experiences which enable them to practice the kind of behavior implied by the objective.

- Learning experiences must give satisfaction and be meaningful.

- Experiences must be appropriate to the students' attainments and predispositions.

- There are many experiences that could be used to attain the same objective.

- Experiences ought to capitalize on the different skills of staff and the interests of students.

- The same experience will usually bring about several outcomes such as an attitude, positive or negative, towards a topic, in addition to information about it.

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[2]Ralph W. Tyler. Basic Principles of Curriculum and Instruction. Chicago: University of Chicago Press, 1949, pp. 63-67.

To these principles could be added:

- Transfer of a skill from one domain to another (e.g., problem solving in math to problem solving in social studies) is unsure unless specific efforts are made to carry the practice over into the second domain. In other words, transfer is not automatic.

- Thorough learning, e.g., in foreign language, requires much repetition and practice. In fact, time spent in learning something is usually more important than subtleties of method.

Strategies

Bruce Joyce and Marsha Weil in their book, Models of Teaching[3] present an analysis of different strategies, or models of instruction.

Social Interaction
- Group Investigation
- The Jurisprudential Model
- Social Inquiry
- Laboratory Method

The Personal Sources
- Non-directive Teaching
- Classroom Meeting Model
- Synectics
- Awareness Training

Information Processing
- Concept Attainment
- An Inductive Model
- Inquiry Training Model
- Biological Science Inquiry Mode
- Advance Organizer Model
- Developmental Model

Behavior Modification
- Operant Conditioning

These models furnish the curriculum developer with alternatives to the usual lecture or textbook approach to learning. Another classic resource is Robert Gagné's book The Conditions of Learning[4].

Procedures

The strategies described above lend themselves to many procedures for use in the learning situation:

Student-centered
- Reading aloud
- Reciting
- Doing workbooks
- Doing exercises
- Role playing
- Simulations
- Individual Project
- Library work
- Field trips
- Making reports

Teacher-centered
- Demonstration
- Discussion - Directed
  - Non-directive
- Case study
- Recitation on textbook material
- Lecturing
- Use of audiovisual media (e.g., movies, slides, tapes, records, television)
- Use of complex systems (e.g., learning center, computer-based instruction)

[3] Bruce Joyce and Marsha Weil. Models of Teaching. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1972.

[4] Robert Gagné. The Conditions of Learning. 3rd ed. New York: Holt, Rinehart and Winston, 1977.

Free play
Performing
Tutoring

The choice of one or another of these procedures should be guided by what is known from research about their effectiveness, perceptions of the learning styles of the students, appropriateness to the subject matter or objectives, and the special talents of the teachers in using particular procedures.

The implication of these suggestions about learning psychology, strategies, and procedures is that the project planners must precisely describe the specifications regarding students (how many, age, grade level, ability, class size), teaching staff, timing (number and length of sessions, days per week), location (room facilities, labs, library use) before making a final decision about methods.

Instructional methods should be adapted to the purposes of the program and the content of the curriculum.

...REVIEW AND EDITING

Once developed, the curriculum materials should be carefully edited by staff members before they are distributed widely or even used in a limited field test. The technical quality and the appearance of a publication are nearly as important as its contents. A set of materials which is poorly organized, ill-designed, and rife with typographical errors, no matter how fine the content, demeans the entire effort and undermines the staff's credibility with the users. It is also recommended that a critic or critics independent of the project staff review the product for both content validity and technical quality. Suggested criteria for evaluating the quality of the project materials are provided in Chapter 6 on pp. 51-55.

CHECKLIST - CHAPTER 5 - DEVELOPMENT

	Yes	No	Not Applicable
1. Has an organizational scheme for the project been developed?			
2. Do the learning experiences planned for the new curriculum correspond to the objectives stated in the curriculum proposal?			
3. Are all the proposed materials topics useful and relevant to the purposes of the project?			
4. Is there a systematic consistency between the curriculum and the objectives, curriculum and methods, curriculum and evaluation plan?			

	Yes	No	Not Applicable
5. Are there opportunities proposed for study in depth of some important topic?			
6. Is the emphasis on various parts of the program well balanced?			
7. Has an effort been made to articulate this program: • With others going on at the same time? • With curricula of previous years? • With the program of studies in the grades or years following?			
8. Does the sequence of activities make sense?			
9. Is the program designed to show the relationship of various elements in the program to each other?			
10. Are the activities capable of being adapted to suit the individual characteristics of students who may be enrolled?			
11. Is there any conclusive research which supports your choice of method?			
12. Are the methods chosen appropriate to the curriculum/subject matter objectives?			

...REFERENCES

Burton, William H. The Guidance of Learning Activities. New York: Appleton-Century-Crofts, Inc., 1962.

English, Fenwick W. Improving Curriculum Management in the Schools (Occasional Paper 30), Washington, DC: Council for Basic Education, 1980.

Gagné, Robert M. and Briggs, Leslie J. Principles of Instructional Design, 2nd ed. New York: Holt, Rinehart and Winston, 1979.

Goals for Elementary, Secondary, and Continuing Education in New York State. Albany, NY: The State Education Department, 1974.

Pillemer, David B. and Richard J. Light. "Synthesizing Outcomes: How to Use Research Evidence from Many Studies," Harvard Educational Review, Vol. 50, No. 2, pp. 176-195, May, 1980.

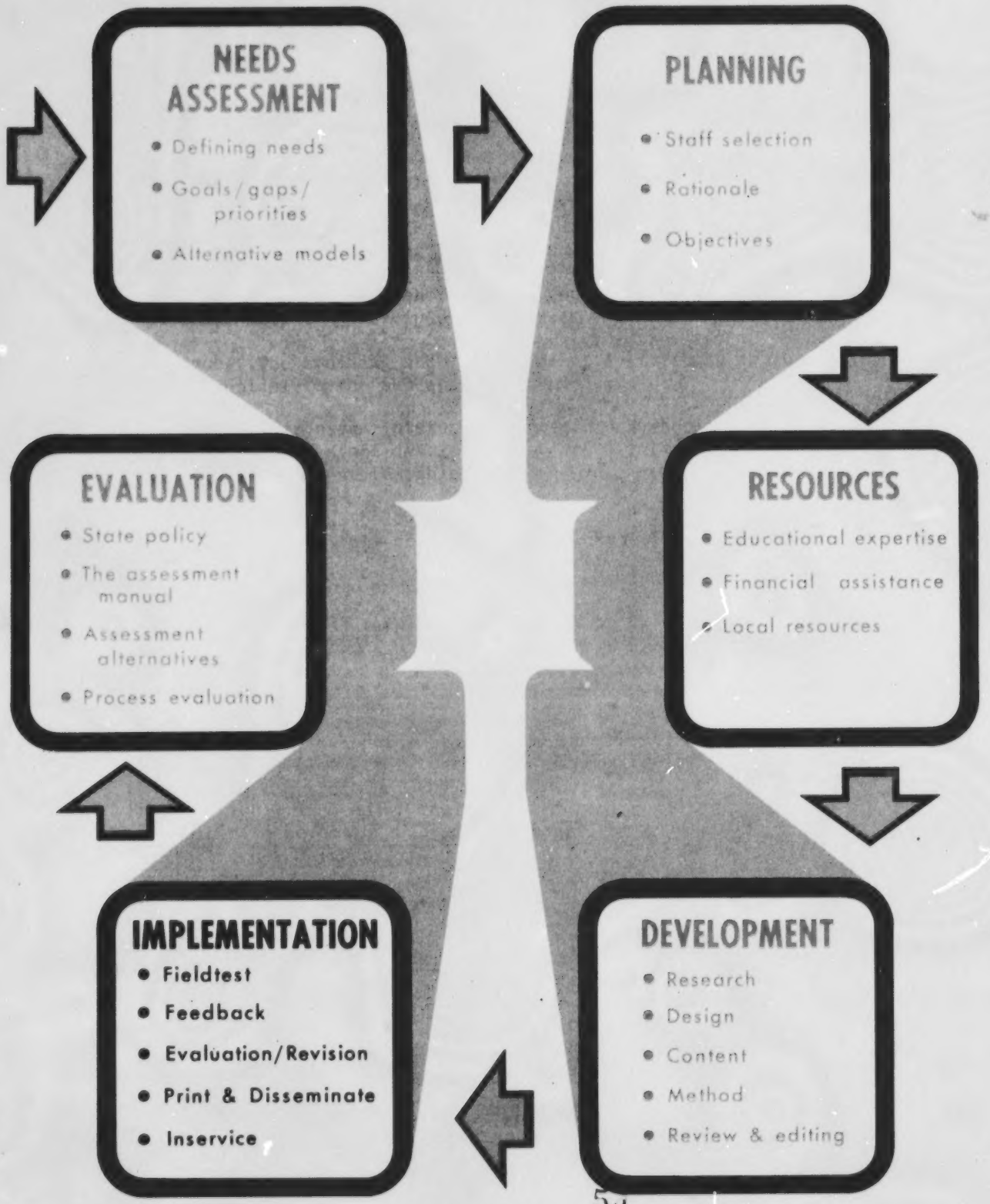
Seel, D.C. "How Do You Do Research? An Introduction for Undergraduates and Others," Journal of Biological Education, Vol. 10, No. 3, pp. 127-132, June, 1976.

Tyler, Ralph W. Basic Principles of Curriculum and Instruction. Chicago: University of Chicago Press, 1949.

Wales, Charles E. "Should Curriculum Planning Start with Subject Matter?" Journal of Educational Technology Systems, Vol 4, No. 1, Jan.-Mar., 1975.

Wingert, Katherine B. "How to Write a Research Report." International Reading Association Conference Proceedings, Part 1, No. 13, pp. 486-491, April, 1968.

THE CURRICULUM DEVELOPMENT PROCESS



CHAPTER 6: IMPLEMENTATION

...OVERVIEW

This section addresses that phase of the process during which the curriculum materials are fieldtested on a relatively small scale, refined and edited based upon user feedback, and published and disseminated. Attention is also given to the staff development and initial monitoring provided when new materials are introduced for classroom use.

...FIELDTEST

The basic objectives of the fieldtest phase of the curriculum development are to: introduce the new materials to a selected, manageable sample of potential users of the project product; provide actual learning situations which will be used as a means of generating constructive feedback; verify and refine the materials.

The following recommendations are offered as a means of insuring that the objectives of the fieldtest phase are satisfied:

- A representative cross-section of the ultimate user population should be selected for participation in the fieldtest.
- Teachers should have the opportunity to volunteer for the fieldtest, rather than be commandeered.
- Fieldtest teachers should be briefed on the rationale for the new materials; i.e., an exposition of the gap revealed by the needs assessment process (the ideal versus the actual) and an explanation of how these materials "plug" this gap.
- Any change in method implied by the new materials in comparison with methods used with the former materials should be explained, by means of inservice, to fieldtest teachers.
- The draft materials should be presentable and "saleable;" i.e., to the extent practical, they should be well-organized, neatly typed and illustrated. Physically unimpressive, unremarkable, hastily-organized materials, whatever their substantive worth, tend to engender among the fieldtesters a negative predisposition regarding their utility.
- Perhaps the most critical element of a successful fieldtest is the degree of commitment felt by the teachers who participate. For the fieldtest to succeed, for it to thoroughly and honestly probe and analyze the merits of the materials, the teachers must:
  - Believe that the need does in fact exist.
  - Agree that the materials appear to meet this need.
  - Feel that the considerable effort they can be expected to expend as "project piloters" will accrue commensurate

benefits (facilitation of their teaching objectives; expectation of a role in the later, widespread implementation effort; enhancement of professional status; remuneration; etc.).

- For the materials to be appraised realistically and fairly during the fieldtest, the facilities used, the resources provided, and the abilities of the teachers involved should be, ideally, no greater or no less than those that characterize the use of present materials. In short, the new materials should be judged in an atmosphere free of any distortions created by a "halo" effect.

...FEEDBACK/EVALUATION/REVISION

One of the most important aspects of the entire development process is the effect of what is learned about the draft materials upon the finished, disseminated product. The key to insuring that the feedback received during the pilot phase is constructive, positive, and useful is the nature and administration of the survey or feedback instrument[1]. This instrument must be designed to:

- Demonstrate clearly to the teachers that their evaluation will significantly affect the post-fieldtest product.
- Encourage free, uninhibited (through anonymity?) response.
- Clearly distinguish among various elements and purposes of the materials: method, content, teacher use, students, etc.
- Avoid the pitfall of scaling responses to subjective questions in order to produce "objective," statistical data. Broad assessments of the material's worth can be collected readily when it is disseminated districtwide or regionally.

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[1] Guidelines on Pilot and Fieldtesting of Curriculum Products. Belmont, MA: Contract Research Corp., 77 p., 1975.

This booklet is intended to aid curriculum developers in designing and conducting fieldtests that yield useful information and sound evidence about the effectiveness of new curricula. Although it was prepared specifically for use by projects funded by the curriculum development branch of the Federal Bureau of Occupational and Adult Education, most of its content is equally applicable to fieldtests of other curriculum development projects as well. This publication was not developed as a handbook on evaluation, and it does not offer a precise formula for fieldtest design; rather, it delineates basic principles and procedures for fieldtesting curriculum products, presents alternative fieldtesting strategies, and discusses practical considerations and strategies for working with school personnel during a fieldtest. Included in the discussion are potentially usable samples of planning and monitoring tools for fieldtesting.

- Elicit specific comments, not generalities, about the various elements of the materials.

  FOR EXAMPLE – Cite ways in which the case study content and format aided students in making decisions. NOT – Were the case studies effective?

  OR – Which discussion questions were most effective in reinforcing the understandings provided? Identify any which were not effective and suggest alternative wording or fresh questions. NOT – Were the discussion questions effective?

  Obviously, the use of such questions implies that teachers using the material will be obligated to commit an appreciable amount of time and thought to the materials assessment. For this reason, it may be advisable to develop the instrument in parts so that evaluation can take place unit by unit. In this way too, teacher impressions of the material will be "fresher" than they would be at the end of the quarter, semester, or year.

- Compare the fieldtested program to the one it is to replace.

At this point, constructive, evaluative data are available which may be used by project staff to revise the draft materials used in the fieldtest.

...PRINTING/DISSEMINATION

As a final check, and to insure consistency with the project plan, the following criteria should be considered before printing (or duplicating the materials):

- *Table of contents thoroughly outlines the major part of the document.*
- *Introduction clearly describes the manner in which the publication is to be used.*
- *Statement of educational philosophy is clearly presented; goals follow.*
- *A rationale describes the problem and its proposed solution.*
- *Objectives are clearly stated.*
- *Subject area scope and sequence are appropriately delineated.*
- *Understandings and generalizations are fully developed within the scope and sequence.*
- *A variety of techniques is provided to accommodate individual differences.*
- *Suggested teaching techniques are clearly identified and defined.*

- *Materials are appropriate to the developmental level, age, and interests of the students.*

- *Related materials, references, and equipment whose use is implied by the publication will be relatively easy for the teacher to obtain.*

The technical quality of the curriculum document must be carefully attended to prior to the widespread distribution (throughout the district or region) now contemplated. Some criteria for insuring high standards follow:

- *Worth and uniqueness of all people are emphasized rather than the differences that exist.*

- *Publication is not characterized by races or ethnic groups being presented in roles.*

- *Materials are free from language that is racist or biased.*

- *Materials make provision for students with such exceptionalities as giftedness, behavioral problems, hearing impairments, learning disabilities, mental retardation, multiple handicaps, neurological problems, physical handicaps, and serious emotional problems.*

- *Materials are free from any form of tokenism with respect to age, race, sex, or exceptionality.*

- *Graphics present current styles of dress of races or ethnic groups.*

- *Older people are depicted as competent, useful citizens.*

- *Language is uncluttered, clear, and appropriate to teacher understanding.*

- *Graphics are effectively integrated, not merely decorative.*

- *Publication contains substantial original material.*

- *Materials are current.*

- *Content of the materials is accurate.*

- *Coverage of the topics is thorough.*

- *Cover design is attractive, inviting.*

- *Format and organization of the materials render them easy to use.*

- *Reproduction is characterized by clear, legible photocopy or printing.*

- *Provision has been made to allow for readily adding materials to, or amending, the guide.*

1.26. Corrections in proofs read by authors or department readers must be indicated as follows:

PROOFREADER'S MARKS

⊙	Insert period	caps.	Caps—used in margin
^,	Insert comma	≡	Caps—used in text
:	Insert colon	c+sc	Caps & small caps—used in margin
;	Insert semicolon	≡	Caps & small caps—used in text
?	Insert question mark	l.c.	Lowercase—used in margin
!	Insert exclamation mark	/	Used in text to show deletion or substitution
=/	Insert hyphen	w.f.	Wrong font
^	Insert apostrophe	⁀	Close up
^^	Insert quotation marks	⌒	Delete
#	Insert 1-en dash	⌒	Close up and delete
#	Insert 1-em dash	⌒	Correct the position
#	Insert space	⊐	Move right
ld>	Insert lead	⊏	Move left
shill	Insert virgule	⊓	Move up
V	Superior	⊔	Move down
Λ	Inferior	‖	Aline vertically
(/)	Parentheses	—	Aline horizontally
[/]	Brackets	⊐⊏	Center horizontally
□	Indent 1 em	⊓⊔	Center vertically
□□	Indent 2 ems	⌣	Push down space
¶	Paragraph	⁀	Use ligature
no ¶	No paragraph	eq.#	Equalize space—used in margin
tr	Transpose [1]—used in margin	vvv	Equalize space—used in text
∩	Transpose [1]—used in text	stet.	Let it stand—used in margin
sp	Spell out	.....	Let it stand—used in text
ital	Italic—used in margin	⊗	Dirty or broken letter
———	Italic—used in text	run over	Carry over to next line
b.f.	Boldface—used in margin	run back	Carry back to preceding line
~~	Boldface—used in text	out, see copy	Something omitted—see copy
s.c.	Small caps—used in margin	?/?	Question to author to delete [3]
≡	Small caps—used in text	Λ	Caret—General indicator used to mark exact position of error in text.
rom.	Roman type		

[1] In lieu of the traditional mark "tr" used to indicate letter or number transpositions, the striking out of the incorrect letters or numbers and the placement of the correct matter in the margin of the proof is the preferred method of indicating transposition corrections. (See rule 2.75.)

[2] Corrections involving more than two characters should be marked by striking out the entire word or number and placing the correct form in the margin. This mark should be reserved to show transposition of words.

[3] The form of any query carried should be such that an answer may be given simply by crossing out the complete query if a negative decision is made or the right-hand (question mark) portion to indicate an affirmative answer. (See example, p. 5.) (See rule 2.71.)

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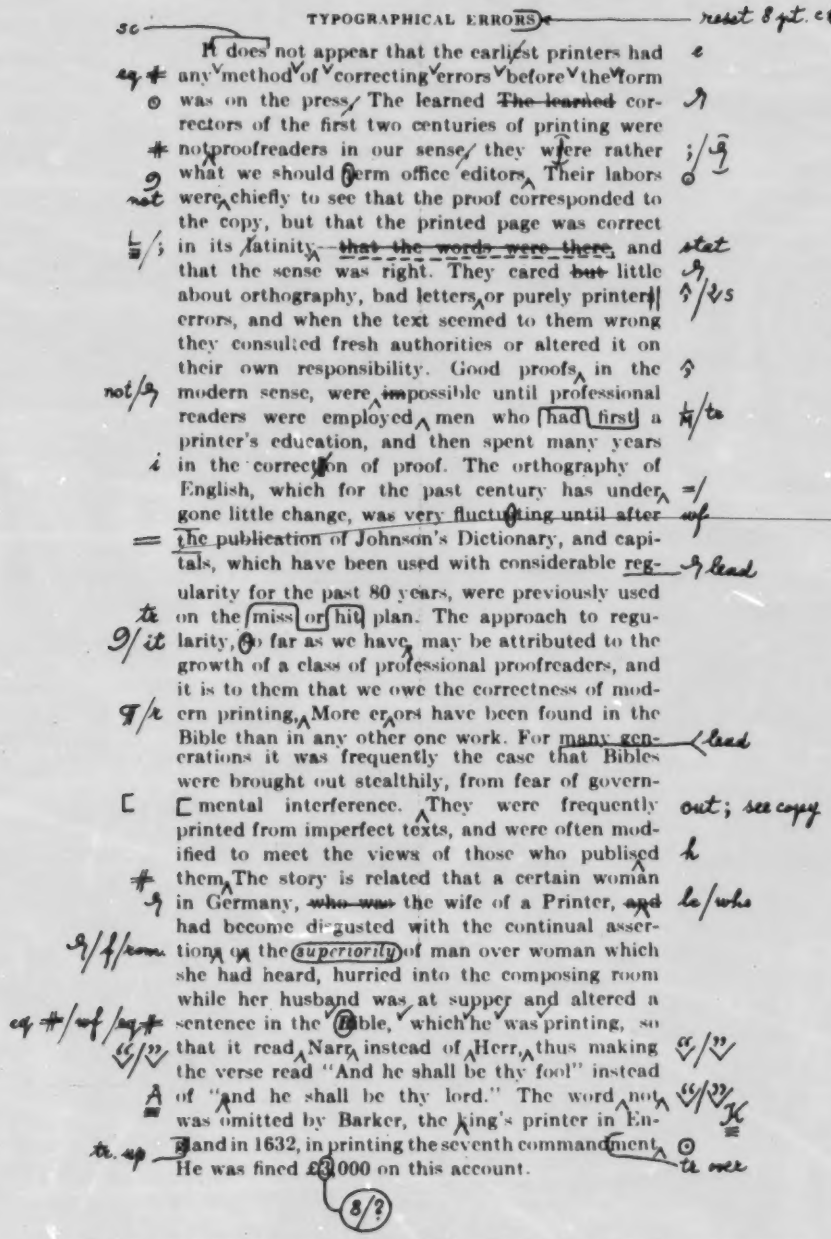
SUGGESTIONS TO AUTHORS AND EDITORS



TYPOGRAPHICAL ERRORS

It does not appear that the earliest printers had any method of correcting errors before the form was on the press. The learned ~~The learned~~ correctors of the first two centuries of printing were not proofreaders in our sense; they were rather what we should term office editors. Their labors were chiefly to see that the proof corresponded to the copy, but that the printed page was correct in its latinity, ~~that the words were there~~, and that the sense was right. They cared ~~but~~ little about orthography, bad letters or purely printers' errors, and when the text seemed to them wrong they consulted fresh authorities or altered it on their own responsibility. Good proofs, in the modern sense, were ~~im~~possible until professional readers were employed, men who had first a printer's education, and then spent many years in the correction of proof. The orthography of English, which for the past century has undergone little change, was very fluctuating until after the publication of Johnson's Dictionary, and capitals, which have been used with considerable regularity for the past 80 years, were previously used on the miss or hit plan. The approach to regularity, so far as we have, may be attributed to the growth of a class of professional proofreaders, and it is to them that we owe the correctness of modern printing. More errors have been found in the Bible than in any other one work. For many generations it was frequently the case that Bibles were brought out stealthily, from fear of governmental interference. They were frequently printed from imperfect texts, and were often modified to meet the views of those who published them. The story is related that a certain woman in Germany, ~~who was~~ the wife of a Printer, ~~and~~ had become disgusted with the continual assertions of the superiority of man over woman which she had heard, hurried into the composing room while her husband was at supper and altered a sentence in the Bible, which he was printing, so that it read Narr instead of Herr, thus making the verse read "And he shall be thy fool" instead of "and he shall be thy lord." The word not was omitted by Barker, the king's printer in England in 1632, in printing the seventh commandment. He was fined £3,000 on this account.

NOTE.—The system of marking proofs can be made easier by the use of an imaginary vertical line through the center of the type area. The placement of corrections in the left-hand margin for those errors found in the left-hand portion of the proof and in the right-hand margin for right-side errors prevents overcrowding of marks and facilitates corrections. (See also rule 2.74.)

Source: U.S. Government Printing Office Style Manual, January, 1973, pp. 4-5.

- *Publication does not contain spelling, grammatical, or typographical errors.* (See the suggestions for editing the curriculum materials which are provided on the next two pages.)

The product will, in this final form, be widely disseminated and evaluated (See Chapter 7.) in terms of the district's goals and the project objective. It would be advisable to consider even this revised, widely disseminated version of the materials as a tentative edition. After a year or more of widespread use, even the best materials will require some modification.

...INSERVICE

Problems

Any discussion of inservice should acknowledge the fact that the type of teacher training most appropriate to program changes as described in this handbook "is the most difficult to plan and execute since it involves changing teacher strategies and expanding teacher options. This type of inservice program demands a clear rationale, a philosophical foundation that makes sense to a teacher..." The curriculum project staff should be aware that they"...must be capable of demonstrating strategies, not only during a given inservice session and later in a number of classrooms with students, but throughout the training. We have all experienced an inservice program where we were lectured in a desultory, deductive manner about the 'inductive' approach and its ability to engage student interest."[2]

In a summary of the research on inservice education, Harry Hutson[3] states that although competent research on the subject is meager, most researchers agree that:

- "The current status of inservice practice is deplorable."
- "Broad-based conceptualizations are lacking."
- "It is important to involve the clients of research in planning their own programs."
- "The incentives for participating in inservice programs should emphasize intrinsic professional rewards" (recognition in school and community, leadership roles, promotion, etc.) — i.e., the awareness that salary credits alone will usually not inspire and motivate to the extent desired.
- "The school site should be the locus of inservice activities."

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[2]John L. Meehan, Program Advisor, Languages, Pennsylvania Department of Education. Initiating Inservice Programs. Harrisburg, PA: 17126

[3]Harry Hutson. "PAR in Inservice," Practical Applications of Research. Newsletter of the Center on Evaluation, Development, and Research. Bloomington, IN: Phi Delta Kappa, 1976.

- "In planning inservice activities it is constructive to think of teachers as able to make positive contributions to program rather than as subjects for imposed training because they lack necessary skills."

Necessary Conditions

In a positive sense, analysis of current inadequacies suggests several principles which may be helpful to those planning inservice activities in support of local curriculum changes:

Quality...Instruction should be of high quality. The same principles of methodology which underlie effective education for students apply to the education of teachers particularly with respect to determining needs and individualizing instructional method.

Substance...The training should be intensive and long enough to provide adequate help to participants.

Relevance...The training should move directly to those topics which are essential to the success of the project.

Motivation; Intrinsic Interest...Participants should be engaged in the planning of staff development programs at an early stage and to the greatest extent feasible.

Logistics...Formats (below) should be selected which are convenient and conducive to full concentration by participants on the topics discussed. It would be helpful in larger school districts to have a person whose sole responsibility is staff development.

Financial Support...Districts should provide in their budgets sufficient funds to make the program successful.

Formats

Consider the following formats or combinations of same in preparation for introducing district staff to the project materials.

Preselection...Instead of training or retraining staff it may be possible to select or reassign teachers who are already familiar with the new methodology, perhaps in some cases by asking for volunteers.

Inclusion in Planning...In some cases the participation in extensive planning is sufficient to acquaint staff with the new development, particularly if the planning includes construction of units of instruction or establishment of new sequences of familiar activities. This principle applies in a larger sense to collaboration between teachers' organizations and local administrations where feasible.

The Local Inservice Course...In this format, teachers meet after school or on Saturdays once a week for several weeks for educational purposes, receiving inservice salary credits or a percentage of salary, however local union contracts are drawn.

Workshops...The word "workshop," once reserved for extended and often fruitful collaboration on educational projects, is now used loosely to represent anything from the one-shot, one-and-a-half hour lecture to the "summer workshop" discussed below. The word "workshop" may also be a controversial one in teacher contracts. It is not often that the one-time workshop is very productive, but it may be effective for orientation purposes or for inspirational effects under the leadership of exceptional speakers.

The Summer Workshop...In this, staff members meet consecutive full days or half days. Under most teacher contracts this arrangement is expensive, but under the right circumstances, much can be accomplished. This format is typically used in connection with CO-SER development and inservice projects.

School-day Work Sessions...Many school districts operate training or planning programs during the school day, hiring substitutes or releasing students to free time for the staff. The district must decide whether it wishes to expend the necessary funds, to release classes, or to turn them over to substitutes. Half-day sessions can be productive, especially if held in the morning.

On-The-Job Learning...There are numerous curriculum packages and texts available which contain day-by-day instructions to the teacher on how to introduce new kinds of learning experiences. There are also audiovisual aids such as television tapes, slide-tape presentations, programmed texts available for certain curriculum programs which have already been developed elsewhere and are going to be introduced into a local district's curriculum.

Individualized Supervision...When the school or project has capable supervisors already familiar with the new curricular activity, or instructors free to work with the teaching staff on an individual basis, personalized instruction is a promising way of bringing about desired changes.

Teachers' Centers[4]...Operating in New York State under differing forms of sponsorship and with flexible programs, these centers may provide opportunities for improvement of instructional practices.

The teaching staff should be selected or trained so that they use the planned methods and media in an effective way.

Measurement of Progress

Evaluation of the inservice activities will vary according to style or format employed and whether the object of assessment is the quality of the training program or the progress of the participants. Some techniques for evaluating these formats would include supervisory observations and evaluations, questionnaires on workshop quality, grades for courses, and product analysis. In either case, evaluation is important so that it becomes known whether to change the inservice method as a result of the assessment information.

[4] Harry H. Bell, Jr. and John W. Peightel. Teacher Centers and Inservice Education. Bloomington, IN: Phi Delta Kappa Educational Foundation, 1976.

Suggestions

In summary, there are a number of precautions that ought to be heeded by way of insuring that the investment already made in developing the materials is repaid through a successful inservice experience for the teachers. The inservice phase should:

- Build upon teachers' interests and needs.
- Provide opportunities for teachers to learn from one another.
- Include "hands on" experiences.
- Be an experience over which teachers can exercise some control.
- Emphasize the strengths of the participants.
- Include administrators, parents, and students to the extend that is practical.
- Conclude with a task-oriented installation strategy for the teachers to employ in transferring the materials from the workshop to the classroom.

CHECKLIST – CHAPTER 6 – IMPLEMENTATION

	Yes	No	Not Applicable
1. The fieldtest involved a representative cross section of the user population.			
2. Teachers had the opportunity to volunteer for the fieldtest.			
3. The evaluation instrument used to measure the success of the fieldtest met the criteria discussed on pp. 50-51.			
4. The fieldtested program was compared to the one it was to replace.			
5. The materials have been revised to reflect the evaluation data collected.			
6. The revised materials have checked for consistency with the project plan according to the criteria on pp. 51-52.			
7. The materials have been carefully edited as suggested on pp. 52-55.			
8. Have you taken into account these principles of inservice training? • Quality • Substance			

	Yes	No	Not Applicable
• Relevance • Motivation • Logistics • Financial Support			
9. Have you selected the most suitable format of inservice from among those listed?			
10. Have you devised or chosen a means of measuring progress in the inservice program?			

...REFERENCES

Edelfelt, Roy A. and Margo Johnson (eds.). Rethinking Inservice Education. Washington, DC: National Education Association, 1975.

Gagné, Robert M. and Leslie J. Briggs. Principles of Instructional Design. New York: Holt, Rinehart and Winston, 1979.

Guidelines on Pilot and Fieldtesting of Curriculum Products. Belmont, MA: Contract Research Corp., 77 p., 1975.

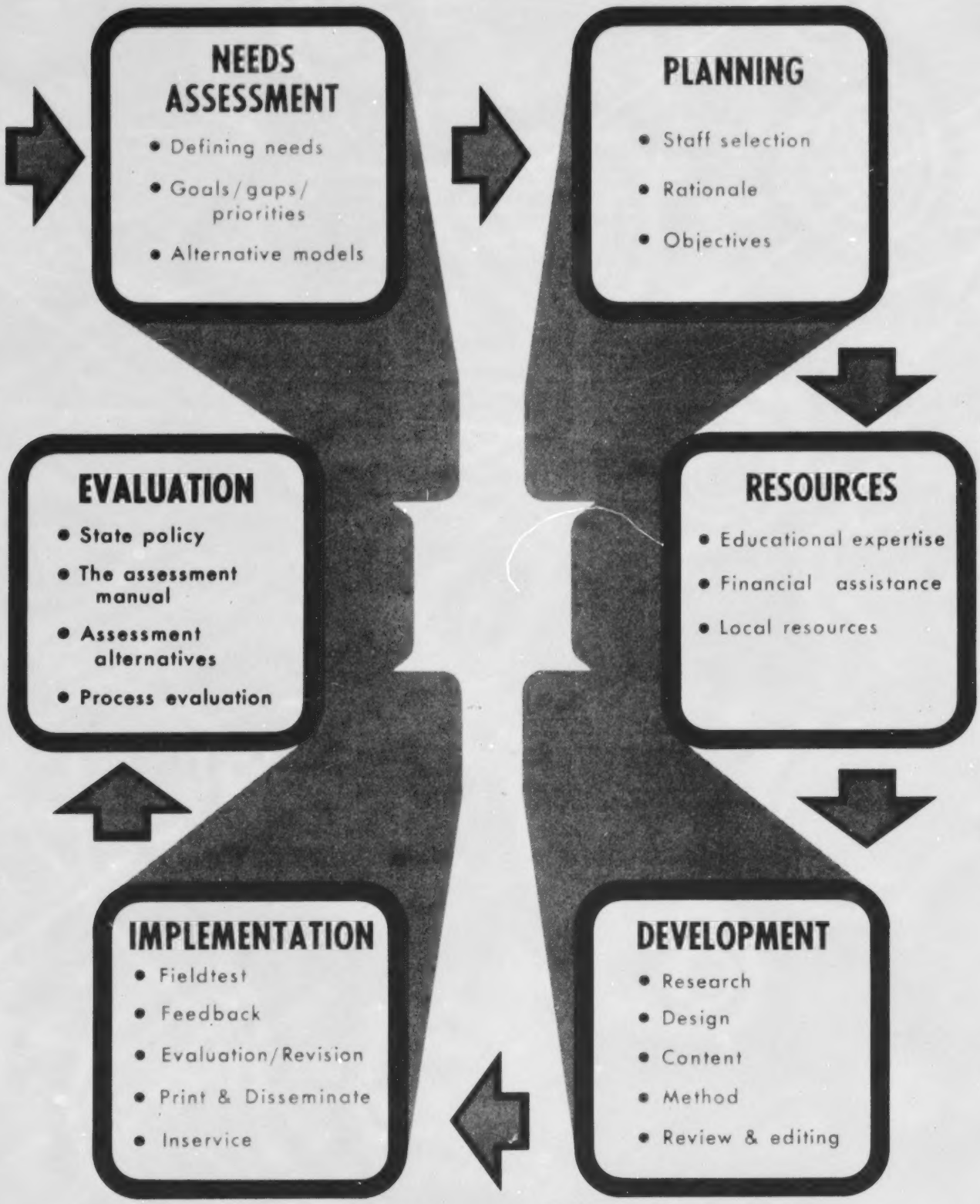
Hathaway, W. E. "Educational Feasibility Studies: A Conceptual Framework." Alberta Journal of Educational Research, Vol. 22, No. 4, pp. 305-310, Dec., 1976.

McLaughlin, Milbrey Wallin and David D. Marsh. "Staff Development and School Change." Teachers College Record. LXXX, No. 1, September, 1978, pp. 69-94.

Paul, Douglas A. "Change Process at the Elementary, Secondary, and Post-Secondary Levels of Education," Nicholas Nash and Jack Culbertson (eds.). Linking Processes in Education Improvement. Columbus, OH: University Council for Educational Administration, 1977.

Rubin, Lewis (ed.). The Inservice Education of Teachers: Trends, Processes, and Prescriptions. Boston: Allyn and Bacon, Inc., 1978.

THE CURRICULUM DEVELOPMENT PROCESS



CHAPTER 7: EVALUATION

...OVERVIEW

This chapter provides a rationale for sound evaluation, suggests the use of an assessment manual, and lists some alternate ways of measuring behavior. This handbook can provide only a brief overview of a variety of evaluation techniques. References given at the end of this chapter do not presume extensive background in research design or statistical analysis, and will prove helpful to local groups designing and completing evaluation studies.

...INTRODUCTION

Contemporary evaluation practices are characterized by numerous shortcomings. Most school systems administer standardized tests regularly, but:

- The tests are not always the most appropriate.
- Many students make little effort to respond to the test items.
- The results are not used properly.
- Diagnostic tests are not used often and effectively enough.
- Teachers do not understand the statistical concepts applied to test results.
- Teacher-made tests tend to be heavily factual.
- Educators are reluctant to construct non-factual measures, such as questionnaires.
- Alternate measurement procedures such as the interview, sampling techniques, and behavioral records are frequently ignored.
- Pre- and post-testing is avoided partly from lack of concern over measurement of progress, and partly over fear of statistical design problems.

Effective evaluation of educational programs is essential if schools are to know whether the curriculum changes introduced are any better than what preceded them. The measurement of human behavior is a subtle and uncertain enterprise because behavior is often intangible, complex, and somewhat unstable. Beyond that, it often is difficult to sort out what results can be attributed to the project and what results may have been caused by other factors. Nonetheless, evaluative data, properly developed and judiciously used, will give useful information about two major concerns:

First, how well is the program going? Are there problems in implementing the program? If so, what are they? (This aspect is called formative or process evaluation.)

Second, what impact has the program had in terms of student achievement? How well were the program objectives accomplished? How does the success of the program compare with alternative program possibilities? Is the program worth continuing? (This aspect is called summative evaluation.)

...STATE POLICY ON EVALUATION OF LOCAL CURRICULUM

State policy on the evaluation of local curriculum projects is quite clear when the project is supported from Federal funds or special State appropriations, such as ESEA Title I, IV, VII, or Chapter 720. Generally speaking, the policy is that no project is approved until an acceptable evaluation plan is proposed, and final payment is not made until a report is rendered describing the evaluation and its results. Requirements for demonstration project proposals under Title IV go further: they demand that the evaluation instruments meet certain standards of validity and reliability and that the results of previous testing during the development stage show proof that gains in learning as specified in project objectives are significant.

Small curriculum projects supported by local funds may be evaluated as the local district sees fit. However, the State Education Department endorses those evaluation procedures which conform to standards generally supported by specialists in the fields of measurement and statistics, such as those which relate to:

- Validity of instruments (measuring what they claim to measure)
- Reliability of instruments (providing consistent results)
- Soundness of evaluation design (proper sampling, appropriate comparison groups)
- Accuracy of data
- Appropriateness of data analysis procedures
- Objectivity of interpretation

...THE ASSESSMENT MANUAL

For most curriculum projects, an assessment manual for project staff should be prepared, specifying evaluation procedures in detail. The preparation of a manual is time consuming. It requires that the project director determine in advance what measures will be used to test each objective, when tests will be administered, how the data will be collected, and what sort of analysis and use of data will be made. If the curriculum project staff members do not decide on such details, however, it is not likely that there will be a successful evaluation. If they do decide, their determinations are more useful if documented. The manual also serves as a guide to all teachers in the project as to when tests are to be given. Essential parts of the manual are these:

Restatement of objectives...Once the project objectives have been spelled out, they can merely be reproduced in the manual for easy reference. Each statement of an objective, properly composed, suggests an evaluation strategy.

Responsibilities...Misunderstandings can be avoided if a chart is prepared, showing who is responsible for:

- Procuring tests and other evaluation instruments
- Distributing tests
- Administrating tests

- Scoring
- Recording test results
- Analyzing results
- Making a written report on findings

Evaluation schedule...A chart showing details of test administration will require these headings:

Objective Tested	Name of Test	Level/ Form	Subject	Pre-test Date	Post-test Date

Instructions for administration... In addition to the manuals available from publishers of standardized tests, there are certain general procedures desirable in order to obtain reliable test results.

Availability tables... It takes time to order tests; and pre-testing, if any, is often delayed because the tests were not ordered during the preceding semester. Some sort of stock record should be maintained, together with estimates of future needs.

Record of student scores... For the benefit of the evaluator, the pre- and post-test scores of students should be recorded in such a way that the raw scores or converted raw scores, such as grade equivalents, are listed opposite the name or number of each student.

Evaluation chart... Before statistical analysis of scores takes place, the design and other details should be specified. A form such as the one in the Appendix on page 85 will serve the purpose of requiring staff to decide each detail sufficiently in advance to avoid such problems as collecting the wrong data, recording percentiles instead of grade equivalents, or failing to identify the person who will do the statistical work.

Record of statistical analysis... For the reporting of standardized test scores, the model reproduced in the Appendix on page 86 will be useful as the findings are interpreted. For other evaluative measures, an adaptation of this record is recommended.

...ALTERNATE WAYS OF EVALUATING STUDENT PROGRESS[1]

The standardized tests used regularly in schools to measure such things as math skills, vocabulary, knowledge of science, etc., have certain advantages in terms of reliability and, for their purposes, validity.[2] But there

[1]Robert L. Thorndike and Elizabeth Hagen. Measurement and Evaluation in Psychology and Education, New York: Wiley, 1969 and Eugene J. Webb et al. Unobtrusive Measures. Chicago: Rand, 1966.

[2]New York State Pupil Evaluation Program and Preliminary Competency Tests (1980) and Regents Examinations & Competency Tests: School Administrator's Manual (1981). Albany, NY: The State Education Department.

are other ways of getting information on student growth, capability, or attitude - ways that are often overlooked:

Tests constructed locally...Frequently there is no commercial test published which fits precisely the evaluative need of the local curriculum project. Useful measures can be produced by school district teaching staff and/or coordinators of instructional services.[3] There are, in addition, techniques for establishing validity and reliability of homemade tests within the capability of local staff: test-retest or odd-even analysis of reliability, and the use of experts to confirm validity.

Questionnaires...Very often there is a need to measure an attitude toward an object or a process, and a ready-made instrument is not suitable for the purpose. The local curriculum developer can produce a questionnaire in which the respondent indicates a point of view. In one popular format, a series of statements is given with space for a reaction to each on a five-point scale. In another format, a series of statements about a topic is presented, ranging from favorable to unfavorable, and the respondents check the statement most nearly in agreement with their attitude toward the topic.

Such a questionnaire is not really difficult to construct. Its author, however, will usually wish to invite other staff members or outside experts to review the test and suggest revision.

Observation of overt behavior...As Thorndike and Hagen point out, attitude scales operate on a purely verbal level.[4] If evaluators of local curriculum wish to measure actions rather than words, there are ways to do so. One way is to keep a record of such actions as social contacts, aggressive behavior, truancy, books read or borrowed, television shows watched, or other "anecdotal" kinds of records. The reliability of such records may be increased by careful definition and consistent description of actions observed, by training observers to obtain greater uniformity of judgment, and by regulating the observations.

Case study...Information from observation, anecdotal records, standardized testing, and any other source can be synthesized in a case study, which is a subjective form of measurement, but one upon which useful research has depended in psychology and education.

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[3] Improving the Classroom Test. Albany, NY: The State Education Department, 1981 reprint.

[4] Thorndike and Hagen, op.cit., pp. 472 ff. in chapter on measuring behavior. Observation techniques have been refined by researchers in their field. One example is Flanders' Interaction Analysis; another is the highly sophisticated observation techniques employing electronic coding devices and computer analysis used in research projects to measure changes in the behavior of handicapped children. A third technique is the systematic analysis of television tapes.

Interview...Interviewing is infrequently employed for the measurement of student progress, partly because it is so time-consuming and partly because interview techniques are generally unexpected as procedures for local evaluation. By using samples of students, structured interviews, and intelligent interpretation of results, the local evaluator can gather much information about the desirability or effectiveness of curriculum change.

Composite measurement...Comprehensive evaluation usually requires a variety of testing procedures and a final summary in which the success of each objective is discussed according to the findings from the appropriate evaluation procedure.

Other non-technical school evaluation techniques...See the guide produced by the State Education Department, Bureau of School and Categorical Programs Evaluation. Simplified Educational Assessment, 1974.

...PROCESS EVALUATION

A system for monitoring progress during the course of the project should be instituted. With large projects, an external inspection team can be quite useful if the visit is arranged so that the team expert is well briefed, in advance, on the objectives of the program. Members of the team can include professional consultants, educators from other districts, BOCES staff, or members of the State Education Department. For federally supported curriculum projects, an external inspection may well be a condition of the grant.

Monitoring by local staff is a normal part of their duty. The checklists included in this guide are designed for the purpose of judging whether the program is meeting the established schedule of the project plan.

...RESOURCES

Large districts often have well-qualified evaluators on their staff. Other districts must rely upon external aids such as the following:

- Professional consultants
- BOCES recommendations
- State Education Department staff
- University personnel

Many evaluation efforts have failed because the staff waited until the end of the project to call in an evaluator, who by that time had no opportunity to get pre-test information, or in some cases was unable to post-test the students in the program.

The following statement from James M. Mahan[5] is worth considering. "Evaluate the program carefully. Do not depend on myths, attitudes, verbal

[5]James M. Mahan. "Overview of a Systematic Effort to Engineer and Monitor Curriculum Change. Emerging Guidelines and Encouraging Findings for Curriculum Installers." Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY, February 6, 1971.

claims, and undocumented publicity. Make sure the program is being taught and learning is taking place."

CHAPTER 7 - EVALUATION - CHECKLIST

	Yes	No	Not Applicable
1. Is there a written evaluation plan for the program?			
2. Is the evaluation plan consistent with the statements of objectives?			
3. Has responsibility for the following tasks been assigned?			
- Procuring or devising tests			
- Collecting and recording data			
- Analyzing data			
4. Does the plan call for a written evaluation report at the end of the project?			
5. Will there be an assessment of procedures during the progress of the project?			
6. Are student needs diagnosed at the beginning of the project?			
7. Where commercially distributed tests are used, has information on validity or reliability been obtained?			
8. Have the following techniques been considered for inclusion in the plan?			

...REFERENCES

Anderson, John F. and Douglas R. Brodie. Questionnaires: Design and Use.

Bellack, Arno A. and Herbert M. Kliebard. Curriculum and Evaluation. Washington, DC: Capitol Publications.

Bloom, Benjamin, et al. Handbook on Formative and Summative Evaluation of Student Learning. New York: McGraw-Hill, 1971.

Guba, Egon G. Toward a Methodology of Naturalistic Inquiry in Educational Evaluation. Los Angeles, CA: Center for the Study of Evaluation, UCLA, 1978.

Harris, C., et al. Problems in Criterion-Referenced Measurement. Los Angeles, CA: Center for the Study of Evaluation, UCLA, 1974.

Johnson, Orval G. Tests and Measurements in Child Development: Handbook II. San Francisco, CA: Jossey-Bass, Inc., 1976.

Lake, Dale G., et al. Measuring Human Behavior. New York: Teachers College Press, 1973.

Marvin, Michael, et al. Evaluating a Curriculum Program: An Educator's Handbook. Philadelphia, PA: Research for Better Schools, 1977.

Orlich, Donald C. Designing Sensible Surveys. Pleasantville, NY: Redgrave Publishing Co., 1978.

Popham, W. James. Educational Evaluation. Englewood Cliffs, NJ: Prentice-Hall, 1975.

Provous, Malcolm. Discrepancy Evaluation. Berkeley, CA: McCutcheon Publishing Corp., 1972.

Shaw, Marvin E. and Jack W. Wright. Scales for the Measurement of Attitudes. New York: McGraw-Hill Book Co., 1967.

Stufflebeam, Daniel L., et al. Educational Evaluation and Decisionmaking. Ithaca, IL: Peacock Publishers, Inc., 1971.

Webb, Eugene, et al. Unobtrusive Measures: Nonreactive Research in the Social Sciences. Chicago: Rand McNally, 1966.

Wolf, Richard M. Evaluation in Education. New York: Teacher's College Press, 1979.

CONCLUSION

...INSTITUTIONALIZATION

Institutionalization means the process by which planned changes become a permanent part of a school program. Unfortunately many curriculum changes perish after a year or two or at most achieve only in part the success which their designers planned for them. On the other hand, many changes endure, at least until events in society or the community dictate different needs once again. Some of the reasons why a local curriculum development program succeeds are:

> The plan enjoyed credibility with administration, staff, students, and community...Conflicts were resolved; deficiencies ameliorated... Teachers were well-trained and receptive to change...Students were interested; achievement flourished...Essential materials and resources were at hand; funds were available...Almost everyone knew what was going on almost all of the time...Many people had a hand in your project and thus many had a stake in its outcome.

Compare your outcomes with Raymond H. Muessig's[1] "symptoms of success."

> When the educational experiences of children and youth have been enriched because their teachers engaged in curriculum work...When all of the curriculum workers have grown personally and professionally as a result of their participation...When teachers are involved in curriculum improvement because they want to be...When teachers who did not want to participate initially in a curriculum project decide that something worthwhile is taking place and that they should become involved...When curriculum improvement becomes a continuous process, rather than an occasional, short-lived effort...When teachers know better than ever before *why* they are doing *what* they are doing in the classroom...When teachers spark each other informally by trading their best ideas in personal discussions, by observing and critiquing each other in their respective classrooms, by exchanging materials and written suggestions all over the school district...When district-developed curriculum guides and resource units are seen on top of teachers' desks and are really *used* frequently, instead of being filed...When channels of communication are opened and strengthened throughout the district, and students, parents, teachers, principals, supervisors, curriculum directors, chief administrators, school board members, and the general public all talk and listen more to each other and like better what they say and hear.

---

[1]Raymond H. Muessig (ed.). Social Studies Curriculum Improvement (Bulletin No. 55). Washington, DC: National Council for the Social Studies, 1978, p. 15.

APPENDIX

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Bureau of General Education Curriculum Development
Albany, New York 12234

Referred to	
Approved for	
Units of credit	
Approval date	

APPLICATION FOR APPROVAL OF COURSES FOR STATE DIPLOMA CREDIT

For each application the following must be submitted:

1. **Three copies of this application**
2. **Two copies of the detailed course of study**
3. **A list of the textbooks and reference books to be used**
4. Additional information as follows:
   a. **Home Economics.** Describe the facility to be used, including a floor plan.
   b. **Social Studies.** See instructions on reverse of this form.
   c. **Science.** Scale drawing of science room showing number and arrangement of pupils' seats, demonstration table, laboratory tables, other work surfaces and storage cabinets. Indicate water, gas and electrical outlets and include short description of out-of-room storage space giving floor and shelving area.
   d. **Industrial Arts.** Itemize list of tools and equipment *and* make ¼" or ½" to 1' scale drawing of shop layout with equipment labeled on drawing. **Submit 2 copies.**

---

1. Name of school ..... County .....
2. Mailing address .....
3. Title of course .....
4. Course offered in grade(s): ☐ 9 ☐ 10 ☐ 11 ☐ 12
5. Prerequisites, if any .....
6. Specially designed for slow learners ..... average ..... above average .....
7. Course will meet ..... weeks for ..... periods a week. Length of period is ..... minutes.
8. Number of minutes outside preparation, if any .....
9. Date course will begin ..... number of sections .....
   expected enrollment in each ..... required ..... elective .....
10. Course will be used for: ☐ local diploma credit ☐ State diploma credit
11. Credit will be given under diploma requirements for: ☐ Group 1 ☐ Group 2 ☐ Group 3
12. Name of teacher ..... Type of certificate .....
    Valid for what subjects ..... Date of certificate .....
    College major ..... College minor .....

Date ..... *Signature of principal* .....

(OVER)

TEACHER QUALIFICATIONS

Teacher'(s) Name..... Years Teaching Experience.....

Undergraduate Major..... Semester hours.....

Undergraduate Minor..... Semester hours.....

Graduate Major..... Graduate Minor.....

Pertinent information relevant to background for teaching this specific course:
(For example, a teacher for a local course in psychology should give specific names of the courses he has taken in this field and in related areas.)

.....

.....

.....

.....

NOTES:

The criteria established by the Department for accreditation of a locally developed course are established by the subject matter Bureaus. Several important characteristics common to most subject areas include a clear statement of reasons for offering the course to students in the particular community; evidence of relationship of the course of study to the basic program in the subject area; an adequate course description in consonance with current State syllabuses in the subject area; a listing of appropriate texts and other teaching materials; the time allotment and credit to be given; and suggested plans and methods for evaluation.

In social studies, for example, the new State syllabuses are organized around concepts, understandings, and generalizations. Hence, a locally developed course description in this field should not be an outline of content. In addition, teaching materials and procedures suggested should be appropriate for an inductive approach and the analytic techniques used by scholars in the social studies disciplines. Finally, the area of study should be one not included in the revised social studies program, or should offer sufficient depth to be significantly advanced beyond the level offered in the mandated program, grades 7–11.

Applications for approval should be submitted well in advance of the starting date given in No. 9. This procedure permits proper review and evaluation in the Department and makes it possible for the teacher to incorporate necessary changes before the course is in use. In such cases, approval may be granted on a temporary basis, pending revision. Applications submitted after the course is underway may be disapproved for credit to the disadvantage of the student.

Please file a copy of the application for future reference if there is undue delay in processing the material here. You will receive either a form approval or a letter, normally within 2–3 weeks.

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APPENDIX – PHILOSOPHY OF EDUCATION

Many boards of education in New York State have adopted statements of educational philosophy. Even when philosophical positions are unstated, they exist nevertheless in the sense that each educational activity presumes some reason for that activity to be sponsored by the district. The advantages of writing out the philosophical statement are that: (1) this exercise requires the board or staff to reexamine its own purposes and test them for validity and consistency and (2) it provides a base for surveys of needs, for goal statements, and for objectives derived from the goals. A sample statement follows:

"This district is committed to the following positions with regard to the education of its residents:

- *Every child between the ages of 5 and 19 is entitled to a free public education.*
- *The district accepts the responsibility of providing instruction, though not necessarily free, to adults in the community.*
- *No student shall be discriminated against because of sex, family income, ethnic background, religion, or handicapping condition.*
- *The object of schooling being to help produce well-rounded individuals, the district commits itself to offering a wide selection of educational experiences in basic skills, arts and humanities, social sciences, environmental science, and occupational preparation.*
- *The district recognizes the importance of attitudinal growth as well as acquisition of knowledge.*
- *The district accepts the responsibility for helping each student grow in appreciation of the law and the commonly accepted rules of society.*
- *The district recognizes the predominance of the capitalistic theory of economics, but will not unduly restrict teachers in informing their students about alternative economic theories.*
- *The district supports the principles set forth by the amendments to the U.S. Constitution, particularly with respect to freedom of speech.*
- *The district adheres to the principle that educational methodology should be guided by the results of research, where that research has been found to be reliable.*
- *The district, as a general principle, supports the concept of individualizing instruction.*
- *The Board of Education expects that time spent in school will be effectively or economically used to instruct students along the lines of the principles set forth above."*

Philosophical discussions sometimes seem tedious to people more accustomed to action than to lengthy contemplation, and the products of such discussions often appear to be too general or vague to be useful. Nevertheless, the neglect of philosophical issues can lead to educational practices which seem irrational or inconsistent when subjected to careful analysis. Take, for example, high schools which concentrate on academic preparation and avoid vocational training even though many of their students are known to be seeking employment rather than further education after graduation.

The subject of educational philosophy is well-treated in LIV Yearbook of the National Society for the Study of Education[1], comparing as it does various philosophical systems and their implications for education: Thomism, idealism, pragmatism, existentialism, realism, and others. A much shorter and simpler statement of a philosophy of education is contained in Ralph W. Tyler's monograph[2].

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[1]National Society for the Study of Education. LIV Yearbook-Modern Philosophies of Education. Chicago: University of Chicago Press, 1955.

[2]Ralph Tyler. Basic Principles of Curriculum and Instruction. Chicago: University of Chicago Press, 1949.

APPENDIX – NEEDS ASSESSMENT: SOME QUESTIONS

A practical means of beginning a needs assessment would be to present a series of evocative questions in hierarchical order; that is, beginning with the beneficiary of the learning process, the student, and concluding with the manager of curriculum and instruction.

LEARNERS

- What do standardized tests tell us about the adequacy of the curriculum in terms of student performance?
  - What can we learn from normative criteria?
  - How do we separate the variables of quality of instruction and quality of tools or materials?
- How much of the omnipresent "student disaffection/dissatisfaction," to whatever degree it is apparent, is related to irrelevant curriculum and instruction?
- What is happening to the student dropout rate?
- To what extent (percentage) do graduates gain and retain employment after graduation? (...if this data can be viewed as untainted by minor, short-term, local economic phenomena. Major, long-term economic phenomena can and should be accommodated by the instructional program.)
- What is the data concerning higher education matriculation and graduation?

TEACHERS

- Do teachers feel that the curriculum meets their needs in helping students achieve their goals?
- Do teachers still retain their enthusiasm and vitality after a few years or more experience? What are the curricular implications of this information?
- Is teacher dissatisfaction related to social and economic factors or do they feel that the curriculum is inadequate for the times, the issues, and the students' needs?

MANAGERS (LOCAL)

- Do administrators sympathize with teachers' assessment of the importance of the curriculum to the learning process or has "administrivia" become a serious impediment to the primary goal of schools?
- To what extent is administrative observation and supervision of teaching an evaluation of curriculum needs as well as an assessment of instructional competency?

- How effectively does the school administration collect and weigh community concerns and interpret same as program or curricular needs?

- What are the ways of transmitting this information more efficiently to the teachers and beyond the school, to the region and the State as expressions of curricular needs?

- To what extent and how are local curriculum development products interpreted as meeting some of the developer districts' needs and the needs of other districts in the State?

MANAGERS (REGIONAL)

- Do the educators in the BOCES, with the input of SED through the CO-SER process, effectively synthesize the expressed curricular needs of constituent local school districts?

- Are the collective resources of the districts, in conjunction with the CO-SER subsidies, applied to the goals and priorities established?

If the appropriate instruments are used to elicit and collate information represented by the hierarchy of questions above, this information becomes a major component of the needs assessment process.

APPENDIX – GOALS/CURRICULUM AREA MATRIX

Curriculum / Goals	Basic skills	Lifetime learning	Health maintenance	Human relations	Values	Knowledge	Occupational competence	Culture	Citizenship	Environment	Consumerism
Fine Arts											
English Language											
Foreign Languages											
Health											
Humanities											
Music											
Mathematics											
Physical Education											
Safety											
Science											
Social Studies											
Practical Arts											
Business											
Technical											
Trade											
Health Occupations											
Agriculture											

APPENDIX – A BOCES-SPONSORED CURRICULUM DEVELOPMENT PROGRAM

(A Time Frame)

EVENT	Time
PHASE I: PLANNING	
Planning is based on identified needs, analysis of data, considering alternatives and presenting a tentative plan. Once a specific plan is elected, BOCES implements all stages of the plan, moving the program into action.	Constant and on-going
BOCES:	
- Develops and presents tentative plan to districts.	November
ALL CONCERNED:	
- Select a specific plan to meet identified need(s).	December/January
BOCES:	
- Selects personnel, consultants.	May
- Establishes meeting dates, times, places.	
- Organizes preliminary orientation sessions.	
PHASE II: DEVELOPMENT AND IMPLEMENTATION	
Under BOCES direction, concentrated curriculum development takes place during the summer with the tentative document ready for fieldtesting in the fall. Intensive fieldtesting and evaluation, coupled with periodic team meetings, encourages high visibility and worthwhile evaluations.	
BOCES:	
- Provides an intensive period of curriculum development by selected team members, team leader, and BOCES liaison.	July
CURRICULUM TEAM:	
- Encourages and coordinates fieldtesting by all appropriate teachers.	
- Holds periodic (monthly) meetings to compile fieldtesting returns, evaluate results, and revise curriculum as dictated.	September through May

Event	Time
PHASE III: EVALUATION AND FOLLOW-UP	
Review of evaluations, revision, and distribution are followed by concentrated implementation activities and determining total program's impact and needs. Often the program development process identifies other different, but related, needs which produce derivative service demands. Examples are: developing BOCES audio-visual services, supplemental teaching aides, updating bibliographical information, computerizing follow-up data, developing a pool of standardized test items.	
CURRICULUM TEAM:	
- Develops final revision based on fieldtesting evaluations.	June
- Reports evaluation summary to all concerned parties.	
BOCES:	
- Distributes revised, printed document to participating districts.	September
ALL CONCERNED:	
- Concentrated implementation activities.	September through June
ALL CONCERNED:	
- Evaluate total program's impact on needs.	Ongoing
- Determine effect by: analyses of pupil progress dropout rate student follow-up other appropriate measurements	

Source: Livingston-Steuben-Wyoming BOCES

APPENDIX – A WRITTEN PLAN: SAMPLE FORMAT

Directions: Use each of the five headings below in your narrative describing the plan.

1. **Statement of need.** Describe the gap between the present state and the desired state. The local educational need for this project should be substantiated.

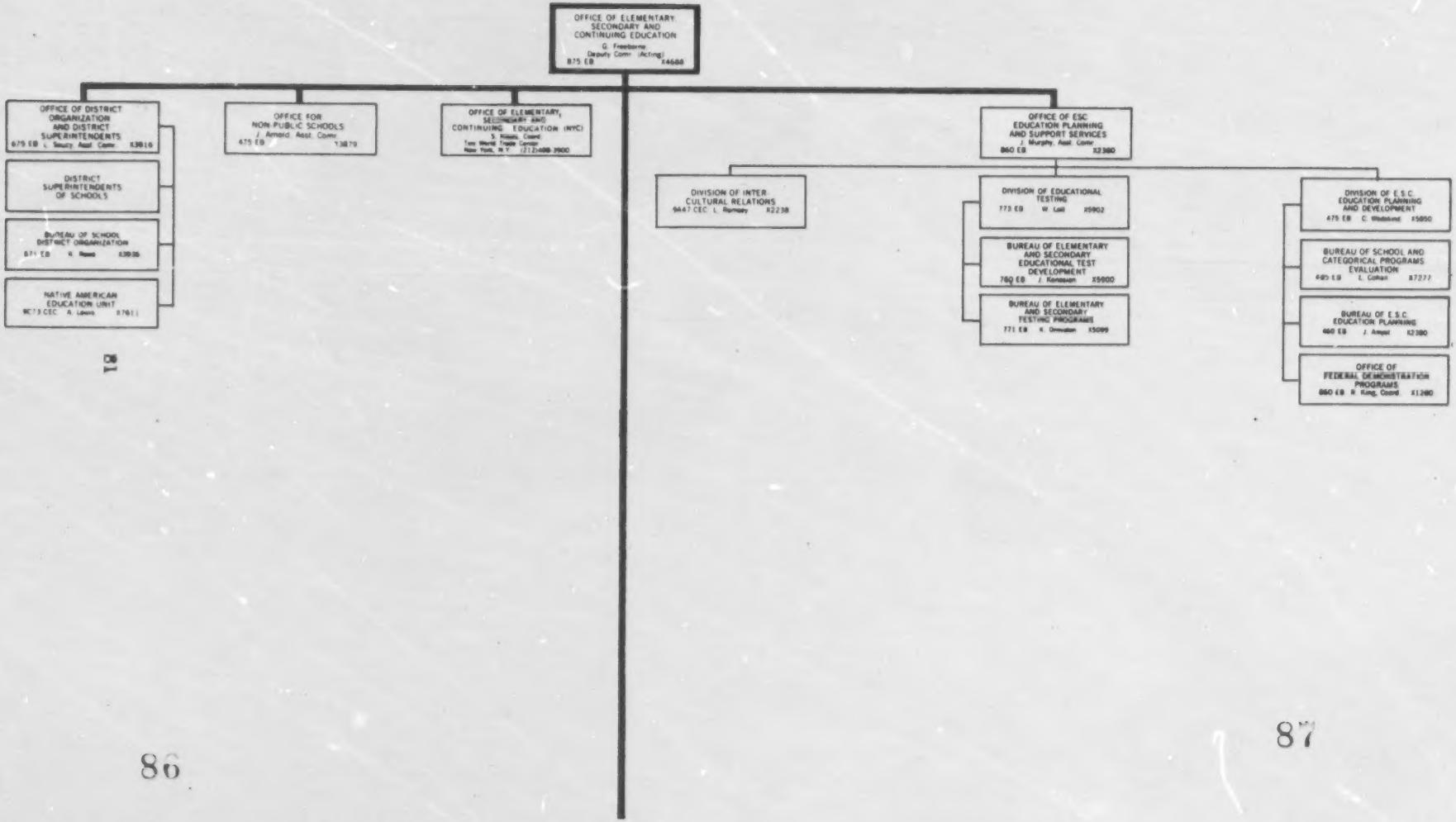
2. **Description of problem.** Describe the particular problem which this project will attempt to solve during the course of the year.

3. **Statement of objectives.** List the desired changes in student behavior in measurable terms. Indicate "who, what, when, and how."

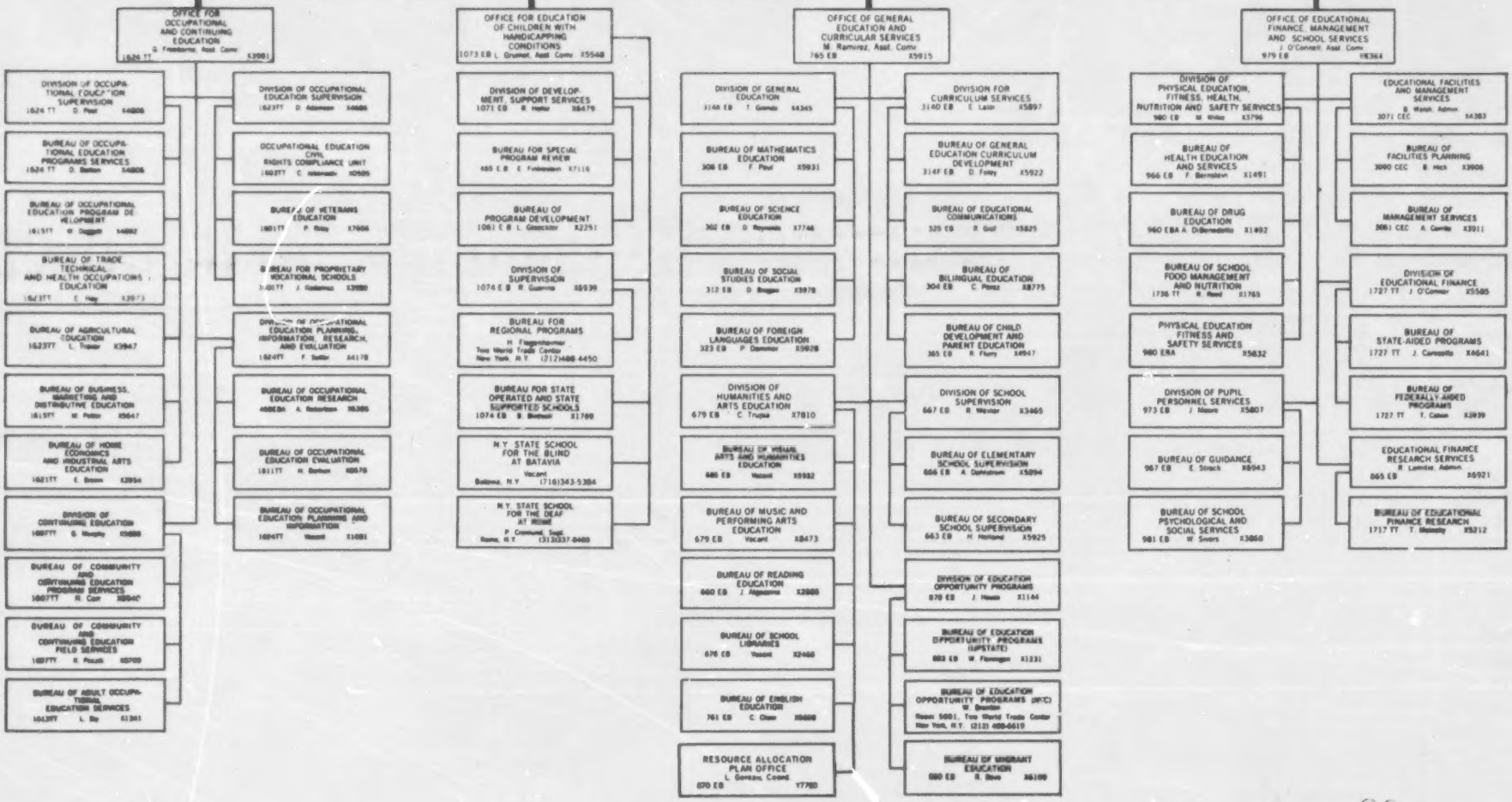
4. **Solution proposed.** Describe the activities you are planning to achieve the above stated objectives. Specify project staff and students to be served and justify budget items. Include a timetable.

5. **Evaluation design.** Indicate what evaluative measures you will use to determine how successfully the above stated objectives have been met. List standard tests to be used, if any, or indicate alternative assessment procedures. Describe provisions for the collection of base-line data and for continuation beyond the project period.

APPENDIX – SED ORGANIZATION CHART (PARTIAL)


OFFICE OF ELEMENTARY, SECONDARY AND CONTINUING EDUCATION
G. Freeborne
Deputy Comm. (Acting)
875 EB X4608
OFFICE OF DISTRICT ORGANIZATION AND DISTRICT SUPERINTENDENTS
675 EB L. Beauty, Asst. Comr. X3816
DISTRICT SUPERINTENDENTS OF SCHOOLS
BUREAU OF SCHOOL DISTRICT ORGANIZATION
671 EB R. Rossi X3835
NATIVE AMERICAN EDUCATION UNIT
967 3 CEC A. Lewis X7611
OFFICE FOR NON-PUBLIC SCHOOLS
J. Arnold, Asst. Comr.
675 EB X3879
OFFICE OF ELEMENTARY, SECONDARY AND CONTINUING EDUCATION (NYC)
S. Hirsch, Coord.
Two World Trade Center
New York, N.Y. (212)488-3900
OFFICE OF ESC EDUCATION PLANNING AND SUPPORT SERVICES
J. Murphy, Asst. Comr.
860 EB X2380
DIVISION OF INTER CULTURAL RELATIONS
9647 CEC L. Ramsey X2238
DIVISION OF EDUCATIONAL TESTING
773 EB W. Lall X5902
BUREAU OF ELEMENTARY AND SECONDARY EDUCATIONAL TEST DEVELOPMENT
760 EB J. Kenabeah X5900
BUREAU OF ELEMENTARY AND SECONDARY TESTING PROGRAMS
771 EB K. Ormiston X5099
DIVISION OF E.S.C. EDUCATION PLANNING AND DEVELOPMENT
475 EB C. Waldstein X5050
BUREAU OF SCHOOL AND CATEGORICAL PROGRAMS EVALUATION
685 EB L. Cohen X7277
BUREAU OF E.S.C. EDUCATION PLANNING
860 EB J. Arnold X2380
OFFICE OF FEDERAL DEMONSTRATION PROGRAMS
860 EB R. King, Coord. X1260

APPENDIX – SED ORGANIZATION CHART (Cont.)


OFFICE FOR OCCUPATIONAL AND CONTINUING EDUCATION
OFFICE FOR EDUCATION OF CHILDREN WITH HANDICAPPING CONDITIONS
OFFICE OF GENERAL EDUCATION AND CURRICULAR SERVICES
M. Ramirez, Asst. Comr.
765 EB X5915
OFFICE OF EDUCATIONAL FINANCE, MANAGEMENT AND SCHOOL SERVICES
979 EB
DIVISION OF OCCUPATIONAL EDUCATION SUPERVISION
BUREAU OF OCCUPATIONAL EDUCATION PROGRAMS SERVICES
BUREAU OF OCCUPATIONAL EDUCATION PROGRAM DEVELOPMENT
BUREAU OF TRADE TECHNICAL AND HEALTH OCCUPATIONS EDUCATION
BUREAU OF AGRICULTURAL EDUCATION
BUREAU OF BUSINESS, MARKETING AND DISTRIBUTIVE EDUCATION
BUREAU OF HOME ECONOMICS AND INDUSTRIAL ARTS EDUCATION
DIVISION OF CONTINUING EDUCATION
BUREAU OF COMMUNITY AND CONTINUING EDUCATION PROGRAMS SERVICES
BUREAU OF COMMUNITY AND CONTINUING EDUCATION FIELD SERVICES
BUREAU OF ADULT OCCUPATIONAL EDUCATION SERVICES
OCCUPATIONAL EDUCATION CIVIL RIGHTS COMPLIANCE UNIT
BUREAU OF VETERANS EDUCATION
BUREAU FOR PROPRIETARY VOCATIONAL SCHOOLS
BUREAU OF OCCUPATIONAL EDUCATION RESEARCH
BUREAU OF OCCUPATIONAL EDUCATION EVALUATION
BUREAU OF OCCUPATIONAL EDUCATION PLANNING AND INFORMATION
DIVISION OF DEVELOPMENT, SUPPORT SERVICES
BUREAU FOR SPECIAL PROGRAM REVIEW
BUREAU OF PROGRAM DEVELOPMENT
DIVISION OF SUPERVISION
BUREAU FOR REGIONAL PROGRAMS
BUREAU FOR STATE OPERATED AND STATE SUPPORTED SCHOOLS
N.Y. STATE SCHOOL FOR THE BLIND AT BATAVIA
N.Y. STATE SCHOOL FOR THE DEAF AT ROME
DIVISION OF GENERAL EDUCATION
BUREAU OF MATHEMATICS EDUCATION
BUREAU OF SCIENCE EDUCATION
BUREAU OF SOCIAL STUDIES EDUCATION
BUREAU OF FOREIGN LANGUAGES EDUCATION
DIVISION OF HUMANITIES AND ARTS EDUCATION
BUREAU OF VISUAL ARTS AND HUMANITIES EDUCATION
BUREAU OF MUSIC AND PERFORMING ARTS EDUCATION
BUREAU OF READING EDUCATION
BUREAU OF SCHOOL LIBRARIES
BUREAU OF ENGLISH EDUCATION
RESOURCE ALLOCATION PLAN OFFICE
DIVISION FOR CURRICULUM SERVICES
BUREAU OF GENERAL EDUCATION CURRICULUM DEVELOPMENT
BUREAU OF EDUCATIONAL COMMUNICATIONS
BUREAU OF BILINGUAL EDUCATION
BUREAU OF CHILD DEVELOPMENT AND PARENT EDUCATION
DIVISION OF SCHOOL SUPERVISION
BUREAU OF ELEMENTARY SCHOOL SUPERVISION
BUREAU OF SECONDARY SCHOOL SUPERVISION
DIVISION OF EDUCATION OPPORTUNITY PROGRAMS
BUREAU OF EDUCATION OPPORTUNITY PROGRAMS (UPSTATE)
BUREAU OF EDUCATION OPPORTUNITY PROGRAMS (NYC)
BUREAU OF MIGRANT EDUCATION
DIVISION OF PHYSICAL EDUCATION, FITNESS, HEALTH, NUTRITION AND SAFETY SERVICES
BUREAU OF HEALTH EDUCATION AND SERVICES
BUREAU OF DRUG EDUCATION
BUREAU OF SCHOOL FOOD MANAGEMENT AND NUTRITION
PHYSICAL EDUCATION FITNESS AND SAFETY SERVICES
DIVISION OF PUPIL PERSONNEL SERVICES
BUREAU OF GUIDANCE
BUREAU OF SCHOOL PSYCHOLOGICAL AND SOCIAL SERVICES
EDUCATIONAL FACILITIES AND MANAGEMENT SERVICES
BUREAU OF FACILITIES PLANNING
BUREAU OF MANAGEMENT SERVICES
DIVISION OF EDUCATIONAL FINANCE
BUREAU OF STATE-AIDED PROGRAMS
BUREAU OF FEDERALLY AIDED PROGRAMS
EDUCATIONAL FINANCE RESEARCH SERVICES
BUREAU OF EDUCATIONAL FINANCE RESEARCH

83

Summary: ECIA, 1981

The Education Consolidation and Improvement Act of 1981 has three Chapters:

Chapter 1: Titled "Financial Assistance to Meet Special Educational Needs of Disadvantaged Children," Chapter 1 is a rewrite of ESEA Title I which contains only minor programatic changes.

Chapter 2: Titled "Consolidation of Federal Programs for Elementary and Secondary Education," Chapter 2 combines 30 ESEA titles into a single program of grants for the states.

Chapter 3: Titled "General Provisions," Chapter 3 outlines administrative and accounting requirements and limits the authority of the Secretary of Education to issue regulations as well as the legal standing of those regulations.

All Chapters take effect October 1, 1982 and have authorization through the 1987 Fiscal Year.

Chapter 2 Consolidation

Chapter 2 consolidates many elementary and secondary programs into a single state grant and several other programs into a discretionary fund.

Funds must be used for specified purposes, but in accordance with educational needs and priorities of state and local education agencies. It is the intent of Chapter 2 to reduce administrative requirements and paperwork associated with categorical programs.

Programs Consolidated

There are 30 programs included in the Chapter 2 consolidation.

They are:

- Basic Skills (ESEA Title II)
- Special Projects (ESEA, Title III)

Metric Education
Arts in Education
Preschool Partnership Programs
Consumer Education
Youth Employment
Law-Related Education
Environmental Education
Correction Education
Biomedical Sciences
Population Education
Health Education

- Instructional Materials and School Library Resources (ESEA Title IV-B)
- Improvement in Local Educational Practices (ESEA Title IV-C)
- Guidance, Counseling and Testing (ESEA Title IV-D)
- Strengthening State Education Agency Management (ESEA Title V-B)
- Emergency School Aid (ESEA Title VI)
- Community Schools (ESEA Title VIII)
- ESEA Title IX (except Part C, Women's Educational Equity):
- Gifted and Talented Children
- Educational Proficiency Standards
- Special Grants for Safe Schools
- Ethnic Heritage Program
- Teacher Corps (HEA Title V-A)
- Teacher Centers (HEA, Title V-B, Sec. 532)
- Follow Through Act (on a phased basis over three years)
- Pre-College Science Teacher Training (NSFA, Sec. 3 (a) (1)
- Career Educational Incentive Act

Programs Not Included

A number of programs were not included under the Chapter 2 consolidation. They are:

- Bilingual Education
- Vocational Education
- Education of Handicapped Children
- Vocational Rehabilitation
- Adult Education
- Women's Educational Equity
- Civil Rights
- Title IV Training and Advisory Services
- Impact Aid
- Indian Education
- Library Services and Construction
- Higher Education, except as noted in Title V

Discretionary Fund

Included in the Secretary of Education's discretionary fund are:

- Dissemination of Information (ESEA, Title III-K)
- National Diffusion Network (ESEA, Title III, Part A Sec. 303)
- *Inexpensive Book Distribution Program under Reading is Fundamental (ESEA, Title II-C)
- *Programs of National Significance under Arts in Education (ESEA, Title III-C)
- *Alcohol and Drug Abuse Education Act

* Must be held harmless at the FY 1981 level.

Allotment of Funds

From the total amount of funds made available for Chapter 2:

- One percent is reserved for the U.S. Territories;
- Six percent is reserved for the Secretary's discretionary fund;
- The remainder is distrubuted to states on the basis of each state's share of the school age (5–17) population, with no state receiving less than .5 percent of the remainder.

State Application

To participate a state must submit to the Secretary of Education a three-year application which may be updated annually. The application must designate the state education agency responsible for administration and supervision; provide for a broadly representative state advisory committee for consultation with the state education agency; establish a plan for allocating funds to local school districts; and provide for appropriate public notices, an annual evaluation, and the keeping of records for fiscal audits and program evaluations.

Substate Allocation

From the total amount of funds received in each state, not less than 80 percent must be allocated to local education agencies, and up to 20 percent may be reserved for State administration and programs.

For the 80 percent portion, the state education agency must distribute the funds to local educational agencies according to relative enrollments in public and nonpublic schools with school districts. Higher per pupil allocations must be provided to local educational agencies with greatest numbers or percentages of children whose education imposes higher than average costs, such as children from low-income families, in economically depressed areas, and in sparsely pop-

From: Inside Education, Fall, 1981.

ulated areas. The Secretary must approve the State's criteria for making the higher per pupil allocations.

Local Applications

In order to receive funds, a local educational agency must file with the state educational agency a three-year application which may be updated annually, and which:

- Describes the planned allocation of funds among programs authorized.
- Provides assurances of compliance with requirements, such as participation of children in nonpublic schools.
- Agrees to keep records and provide information to the state education agency on fiscal audits and program evaluations, and
- Provides for consultation with parents, teachers, and adminstrative personnel.

Each local educational agency has complete discretion in deciding how funds are to be divided among purposes of the consolidation.

Program Purposes

The Chapter 2 consolidation contains four subchapters which describe the purposes for which funds must be used. The first three subchapters provide the areas in which state and local educational agencies may decide to use their funds. The areas are derived from the list of programs consolidated, as described earlier. There are no prescribed set asides for any of the purposes, so that both state and local educational agencies have discretion over the division of funds both *within* each subchapter and *among* subchapters. The fourth subchapter related to the Secretary's use of discretionary funds. A brief description of each subchapter is provided below.

Basic Skills Development: The purpose of this subchapter is to have state and local educational agencies develop a comprehensive and coordinated program to improve instruction in the basic skills of reading, mathematics, and written and oral communications. Funds may be used for the following activities:

State leadership and support services: State education agencies may make grants or enter into contracts with local educational agencies, institutions of higher education, and other public and private agencies, organizations, and institutions. Activities may include planning, research and development, demonstration, training of leadership personnel, short term and regular session teacher training institutes, development of instructional materials, dissemination, and technical assistance to local educational agencies and state boards of education.

State educational agencies may also use funds to enlist the assistance of parents and volunteers to improve the performance of children in basic skills. Such activities in any local area must be with the approval of, and in conjunction with, local educational agencies.

School level program: Local educational agencies must develop a plan providing for the participation of children and teachers in private schools, and include a systematic strategy for improving basic skills instruction at the school building level involving teachers, administrators, parents, and all available resources. Activities must include diagnostic assessment and learning goals, preservice and in-service personnel training, parent participation, testing and evaluation. Programs may include area-wide and district-wide activities.

Educational Improvement and Support Services: The purpose of this subchapter is to allow state and local education agencies to use funds directly, and to make grants and enter into contracts with other education agencies. Funds may be used for the following activities:

- Acquisition and use of school library resources and instructional equipment, taking into account the needs of private school children.
- Improvement of local educational practices, particularly addressing educational problems of children with special needs (such as educationally deprived and gifted and talented children).
- Assistance to local educational agencies, upon their request, to address educational problems associated with minority isolation or concentration. Funds cannot be used for pupil reassignment, transportation, or purchase of equipment for transportation.
- Guidance, counseling, and testing.
- Improvement of planning, management, and implementation of educational programs.
- Teacher training and in-service staff development, and
- Assistance to local educational agencies with schools undergoing desegregation.

Special Projects: State and local educational agencies may use funds directly, make grants, and enter into contracts with other educational agencies. Funds may be used for the following activities:

- Special projects, such as metric education, arts in education, in-school and pre-school partnership programs, consumer education, youth employment programs and coordination with CETA, career education, environmental, health, law-related, and population education, corrections education and biomedical sciences.
- Community education, and
- Gited and talented education, establishment of educational proficiency standards and administration of examinations, safety in schools programs, ethnic heritage studies programs and programs involving training and advisory services under Title IV of the Civil Rights Act of 1964.

Secretary's Discretionary Funds: The Secretary may use funds directly or make grants or enter into contracts with state and local educational agencies, institutions of higher education, and other public and private agencies, organizations, and institutions. Funds may be used for the following activities:

- Gathering and dissemination, individual needs assessment, and programs formerly funded under the National Diffusion Network program.
- Research and demonstration.
- Teacher and other personnel training, and
- Technical assistance to state and local educational agencies.

There is a special proviso that the Secretary must first fund at the FY 1981 levels the following special programs: The Inexpensive Book Distribution Program (as carried out through "Reading is Fundamental"); programs of national significance in the former "Arts in Education" program; and programs in alcohol and drug abuse. The remaining funds may be used for the activities listed above.■

APPENDIX – EVALUATION CHART

1. Performance Objective		Person Responsible	Date
2. (a) Measurement Instruments Commercial Name or Prepared by	(b) Target Population	Pre-test Post-test	
3. Data Collection Procedures a. Scoring b. Reporting c. Compiling			
4. Controls			
5. Sampling Procedures			
6. (a) Data Analysis Technique	(b) Level of Significance		
7. Data Interpretation			
8. (a) Data Presentation	(b) Audience		

APPENDIX – RECORD OF TEST RESULTS & ANALYSIS

Comparison of Grade Level Equivalency scores at _____ (school)

Grades _____, based on results of the _____ (name of test) in _____ (subject)

Form _____, Administered _____ (date)

Means (Grade Level Equivalent)

	Pre-Test	N	Post-Test	N
Means				
Standard Deviations				

Difference between Means _____

\+ Score _____

Probability Level _____

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